

A HUMANE PSYCHOLOGY OF EDUCATION

BY JAIME CASTIELLO, S.J., PH.D. (BONN)

*Professor of Educational Psychology
Fordham University Graduate School*

With a Preface by

LOUIS J. A. MERCIER A.M., LITT.D.
*Associate Professor of French and Education
Harvard University*

LONDON
SHEED & WARD

1937

FIRST PUBLISHED NOVEMBER, 1937
BY SHEED AND WARD
31 PATERNOSTER ROW, LONDON, E C 4
COPYRIGHT IN THE U S A

PRINTED IN GREAT BRITAIN

To

C. C. MARTINDALE

M. C. D'ARCY

SIEGFRIED BEHN

Masters and Friends

FOREWORD

THE author wishes to express his sincere gratitude to all those who directly or indirectly have helped him to formulate the educational synthesis which he presents in this book. To Fr. George D. Bull, S.J., Head of the Department of Philosophy at Fordham University (Graduate School) he is indebted for much constructive philosophical criticism; to Fr. Edward B. Bunn, S.J., Professor of Psychology at Fordham College, for his stimulating comments on all educational topics, especially those pertaining to the domain of art; to Fr. Moorhouse I. X. Millar, S.J., Head of the Department of Political Philosophy at Fordham University (Graduate School), for many inspiring discussions on the metaphysical background of Ethics in education. Further he wishes to thank Professor Louis J. A. Mercier of Harvard University for his careful reading of the entire MS. and innumerable illuminating suggestions in all that pertains to dualistic psychology. To Fr. Francis X. Talbot, S.J., Editor of *America* and to Fathers Francis P. LeBuffe and John LaFarge, S.J., Associate-Editors of *America*, he is indebted for a careful revision of the chapter on the ideal of personality. He also wishes to express his sincere gratitude to Dr. Pierre Marique, Head of the Department of Education at Fordham University (Graduate School) for many stimulating conversations on topics pertaining to the philosophy and history of education; and

to Miss Marie Thérèse Marique, M.A. for a thorough reading of the MS., many useful suggestions in the field of aesthetics, careful proofreading and help in drawing up the indices. Last but not least he is indebted to Dr. James E. Tobin, Head of the Department of English at Fordham University (Graduate School), for a complete revision of the text. A final word of gratitude is due to Fr. Leonard Feeney, S.J., Associate-Editor of *America*, to Fr. Lawrence D. Walsh, S.J., Dean of the Graduate School of Fordham University, to Fr. Aloysius J. Hogan, S.J., Dean of the Graduate School of Georgetown University and to Fr. Robert I. Gannon, S.J., President of Fordham University for their practical help and unfailing encouragement.

July 25, 1936

J. C.

*Fordham University,
New York City.*

PREFACE

DR. CASTIELLO has kindly asked me to write an introduction to this essay of his toward the development of a humane educational psychology because he recognizes that it links with the humanistic movement which I tried to sum up in *The Challenge of Humanism*.

However, a receivership for mechanistic psychology in America has been suggested for some time by others than those who were first associated in the reassertion of the points of view of dualistic humanism. As McDougall puts it: "All the categories of physical science, matter, energy, motion, momentum, mass, and space and time themselves, are in question; and no man can say whether any one of them will emerge alive from the fermenting chaos of modern physical speculation. This being the state of affairs, it is surely premature, to say the least, to assume that human nature and human action are capable of being adequately explained or described in terms of the categories of physical science."¹ "We must hold fast to the truth that the mind and its processes cannot be literally translated into, or adequately represented by, or supplemented by, any description of the structure and functions of the nervous system mechanically conceived."² We may leave it to Professor K. S. Lashley to sum up the situation more specifically in

¹ McDougall, W.: *Outline of Psychology*, p. 33. Cf. Eddington, A.: *The Nature of the Physical World* (Macmillan, 1928).

² *Ibid.*, p. 42.

reference to the most influential of the more recent mechanistic theories, the famous S-R bond hypothesis of Thorndike which became the gospel of so many educators: "In spite of the advancement which has been made in the study of the nervous structure, it is doubtful that we know anything more about the mechanism of learning than did Descartes when he described the opening of the pores in the nerves by the passage of animal spirits. His statement sounds remarkably like the reduction of synaptic resistance by the passage of the nerve impulse. The evidence from many lines of investigation opposes interpretation of learning as the formation of definite "conditioned-reflex arcs" through the cerebral hemispheres or through any other part of the central nervous system. It is doubtful whether the conception of limited conduction paths through the gray matter can be applied even in the case of spinal reflexes."³ As for the "behaviorism" of Watson which was heralded as even more messianic, it has been covered with such contumely that we are almost led to feel sorry for its truculent apostle.⁴

³ Lashley, K. S.: "Nervous Mechanisms in Learning", in Murchison's *Handbook of General Experimental Psychology*, p. 493 (Clark, 1934). Cf. also his presidential address before the American Psychological Association (1929), and *Brain Mechanism and Intelligence* (Chicago, 1929).

⁴ On this whole subject in general Cf. Driesch, H.: *Mind and Body* (N.Y. 1927); East, E. M.: *Biology in Human Affairs* (McGraw, 1931); Jennings, H. S.: *The Biological Basis of Human Behavior* (Norton, 1930); McDougall. *Men or Robots?* in *Psychologies of 1925* (Clark); *The Frontiers of Psychology* (Appleton, 1934); *Body and Mind* (Methuen, London, 1928); McDougall-Watson: *The Battle of Behaviorism* (London, 1928); Jacks, L. P.: *The Revolt Against Mechanism* (Macmillan, 1934); Haldane, J. S.: *The Sciences and Philosophy* (Doubleday, 1929), *Mechanism, Life, and Personality* (Dutton, 1923); Johnstone, J.: *The Essentials of Biology* (Longmans, 1932). Of interest also are: Spearman, C.: *The Abilities of Man* (Macmillan, 1927); Aveling, F.: *The Consciousness of the Universal* (Macmillan, 1932); Stout, G. F.: *Mind and Matter* (Macmillan,

In view of such repudiations of various types of naturalistic psychologies, and of the importance of the educational and social consequences flowing from given conceptions of man's nature, it may well now be asked whether it would not be appropriate for American schools of Education to widen their offerings by presenting to their students the data for dualistic as well as for monistic interpretations of human activities. Instead of being in danger of practising a narrow indoctrination in widely discredited tenets, they could then be truly liberal and objective.

Besides the authoritative production already available to facilitate this task, the present volume should find a special place, even if only as an introduction to a point of view which the average American student or even professor of education has too long been likely to ignore.

The author, Dr. Jaime Castiello, was born in Mexico of Spanish parents, and was sent to a public school in England, Stonyhurst College. After joining the Jesuit order, he studied for seven years in Spain, and, for six more years, in Holland and in Germany: at Valkenburg, Berlin, and finally at Bonn where he obtained a doctorate in philosophy with first class honors in all subjects. The results of his

1931); Moore, T. V.: *The Process of Abstraction* (University of California Publications, 1907); Gruender, H.: *Experimental Psychology* (Bruce, 1932); Kohler, W.: *Gestalt Psychology* (N.Y., 1929). Dr. Castiello would recommend also the works of the Europeans: Lindworsky, Marbe, Ach, Külpe, Watt, Messer, Bühler, Michotte, Bovet, Dwelshauers, Husserl, Scheler (Max), Hartmann, and in particular the following: Froebes, J.: *Lehrbuch der experimentellen psychologie* (Herder, 1929); Behn, S.: *Philosophie der Werte* (Kosel & Pustet, 1930); Blondel, M.: *La Pensée* (Alcan, 1934). For recent summations of the present status of experimental psychological knowledge, cf. Boring-Langfeld-Weld: *Psychology*, a factual text-book (Wiley, N.Y., 1935); Freeman, G. L.: *Physiological Psychology* (Ronald Press, N.Y., 1934).

research work in education appeared under the title *Geistesformung* (Berlin, 1934). He has also published numerous studies in psychology in Spanish, French, and English.⁵ Since 1935 he has been teaching educational psychology in Fordham University, New York. In Germany he studied especially with Froebes, Behn, Rothacker, Becker and Curtius, giving also special attention to the work of Blondel, Maréchal, Janssen, and Przywara, thus coming into personal touch with the movement which attempts to emphasize the dynamic aspect of dualistic humanism even to the extent of utilizing, in its effort to stress the integrated nature of human activities, Hegel as well as Plato, in spite of the fatal monism of the first and the misleading innatism of the second.

Such a *curriculum vitae* should be a guarantee that the author is at least in no danger of being provincial. The fact that he belongs to a religious order may in some quarters militate against his being accepted as a truly objective student of his subject, and his inclusion, at the end of his essay, of the educational possibilities of the faith of Chalcedon, even though it has been so recently reasserted among us by Paul Elmer More as appealing to a skeptic,⁶ will of course be taken by naturalists as an incursion into a

⁵ *Real Psychology in Education* (Fordham University Press, 1935); *The Psychology of Classical Training* (Fordham University Press, 1936); *The Problem of Integration in Educational Psychology* (Fordham University Press, 1936), *Essay on the Historical Function of the University* (Ediciones Proa, 1934); *The Psychology of Habits in St. Thomas Aquinas* (The Schoolman, 1936); *Psychologie des Habitudes Intellectuelles et Morales* (Etudes Classiques, 1936); *El Humanismo y lo Humano* (Razón y Fé, 1935).

⁶ Cf. More, P. E.: *The Greek Tradition* (six volumes, The Princeton Press), especially: *The Christ of the New Testament* (1924).

domain which lies outside the field of education as they understand it.

These possibilities, however, should only help to make us aware that the naturalistic doctrines which ran their course in American education during the last thirty years chiefly meant a series of repudiations which many, besides those who share the faith of Dr. Castiello, see no reason for accepting. Dr. John Dewey's famous assertion, a few years ago, that "faith in the divine author and authority in which Western civilization confided . . . has been made impossible for the cultivated mind of the Western world,"⁷ sounds today even more like an outmoded nineteenth-century boast than it did when it was written. Rather, it is becoming clearer, as Irving Babbitt put it, that all problems, economic, political, and philosophical, are "bound up at last with the religious problem". That the religious question may well remain within the pale of educational discussion should at least be evidenced by the fact that the founders of the United States had the faith which Dr. Dewey would disown; that American institutions are based on belief in a Divine author from Whom flow man's inalienable rights in relation to the state; that the loss of such a faith must inevitably entail the loss of those rights; and that, consequently, if American education were to become wholly naturalistic, American institutions and the American state could not survive—the logical political outcome of naturalism is the totalitarian state and war on every tenet opposed to its own. It would really be not a little ironical if our American educational system, and our schools of education in particular, were to be consecrated to the undermining

⁷ Dewey, J.: "What I Believe" (*Forum*, March 1930).

of the American polity based as it is on the distinction between the kingdom of Caesar and the kingdom of God.⁸

Necessary as is the maintenance of this distinction for the safeguarding of legitimate personal and political liberties, there is a whole domain, however, which can be explored by the light of natural reason alone; and readers of this book must in fairness recognize that Dr. Castiello is quite conversant with all the more recent methods of investigation in the objective and experimental study of man's nature.

What is fast becoming more clear is that naturalistic psychologists are on the eve of being forced to abandon their positions because the natural sciences from which they took their cue are changing their own. What naturalistic psychology tried to do was to explain human activities in terms of a materialistic theory of evolution and such a theory is now considered more and more untenable by scientists.⁹

⁸ Cf. Irving Babbitt calling this distinction "the chief advance in political thinking since Aristotle". (*Democracy and Leadership*, p. 44.) Also: O'Connell, Geoffrey: *Naturalism in American Education* (C.U. thesis, Washington, D.C. 1936).

⁹ Cf. Osborne, H. F.: "Culmination of years of research on my part and the part of others devoted to this specific problem has brought us to the view we must accept: we must modify the original idea of evolution and connect it with the idea of the older world creation—in brief creative evolution." (*Bulletin of the N.Y. Academy of Medicine*, 1927.) "If I have made a single contribution to biology which I feel confident is permanent, it is the profession that Democritus was wrong in raising the hypothesis of fortuity, and that Aristotle was right in claiming that the order of living things as we know them precludes fortuity and demonstrates purpose." (*Evolution and Religion in Education*, N.Y. 1926.) Cf. Taylor, A. E.: *Evolution in the Light of Modern Knowledge* (Blackie, 1925); More, Louis T.: *The Dogma of Evolution* (Princeton, 1925); Lunn, A.: *The Flight from Reason* (N.Y. 1931); Belloc, H.: *Companion to Mr. Wells's Outline of History*; Kellog, V. L.: *Darwinism Today* (Holt, 1908); Dwight, T.: *Thoughts of a Catholic Anatomist* (Longmans, 1927).

Since naturalistic psychologies were based on unproved monistic presuppositions which indeed called for a credulity far in excess of that with which they credited the supernaturalists,¹⁰ it would now at least be only fair for educators to examine the possibility of a distinctively humanistic psychology even if dualistic humanism itself was also based only on presuppositions.

After all, there are only two fundamental alternative conceptions of human life open to us: belief that there is only this-worldliness, and belief that there is this-worldliness and other-worldliness: monistic naturalism and dualistic humanism. We can choose either, but once that is done we are bound by the consequences.

Hypothesis for hypothesis, these alternative consequences might well tempt us to choose pragmatically the more

¹⁰ In general, naturalistic theories of evolution called upon us to believe that an actualization could take place without a preceding potentiality, in other words, that rabbits could come out of empty silk hats. This holds as well for the various steps in a supposed evolution through small changes in the course of generations as for the origin of life. Birds are supposed to have been evolved from reptiles. But how could a reptile gradually grow a wing? Or as Driesch asks: "How could any rudiment of an organism which is not functioning be useful in any way or especially to such a degree as to help toward survival? Incidentally, as Lunn recalls in discussing this point (cf. *op. cit.*: *The Failure of Darwinism*), there are no fossils recording such transformations. Hence the recent work of L. Vialleton: *L'Origine des Etres Vivants: l'illusion transformiste* (Paris, 1927). Vialleton demonstrates that the laws of the organization of organs demand that types should have been formed "by preadaptation, all at once, rationally". And he concludes (p. 378): "The differentiations of living beings, far from being the result of blind forces and of hazard, call for an intelligent activity utilizing in the most rational manner existing things to construct the living world according to a small number of initial plans." . . . "Only the innumerable accidents are fortuitous". . . "The world of the living cannot be explained by natural forces alone." Driesch among others had already concluded: "For men of clear intellect Darwinism has long been dead."

promising. The naturalistic outlook on life has revealed to us all its possibilities and they are dismally limited. In vain does it conjure up pictures of indefinite progress in personal happiness and social well-being. With extinction awaiting us at the end of a short life-span, the first third of which is but a promise and the last third a decline, and the prospect of a political order which will determine us intellectually and socially, as birth and environment are held to determine us personally, a despair born of the hopelessness and futility of it all is more apt to be our lot.

The prospects opened by dualistic humanism are at least more inspiring. Other-worldliness and this-worldliness, spirit and matter. Spirit and matter meet in man and thus man is immortal. He can understand himself and his environment and mould both on the basis of his inalienable rights, and of the duties which flow from his nature. His material senses and imagination help to reveal to him the reality of particulars. His spiritual intellect, on the basis of these data, may further conceive universals, and hence he can compare, judge, reason, reach standards, ideals, and thus become creative and master of his fate. Education is the unfolding of these activities through the study of and adherence to the best that the race has achieved, and through meditation on the causes of its failures. And, as the world of man-made things presupposes a mind that conceives and wills them, and a power commensurate with their complexities, why should not the universe that is not man-made have likewise been preceded by a mind and a power great enough to conceive, to will, and to call them into being? If such a Being exists, why is he not the end of man and of the universe as man is the end of the things he makes?

Why does not the mind of man reach its end: abiding reality, precisely by discovering the antecedently real truth in the mind of that Being? Why should not any truth thus reached and every act shaped accordingly beget the happiness of fulfillment? And if this is so, why should there not be further relations between the made and the maker? Why even should not the maker have revealed Himself intimately to this creature of His which He has endowed with the power to conceive Him and to aspire to Him? Even if the vistas, the range of thought, thus opened by dualistic humanism, were only a hope, it would still be preferable to the monistic naturalistic outlook.

And so it would seem worth while, now that we have fully explored anew the possibilities of the least promising of our two fundamental alternatives in the conception of reality, to re-examine more closely whether the other, hallowed as it is by centuries of the spontaneous belief of the race as well as by the reasoned allegiance of so many powerful thinkers throughout the ages, may not be proved to be the more founded in fact as well as the more pragmatically valuable.

Dr. Castiello's study, based as it is on objective analyses of cases of intellectual generalization, aesthetic creation, and ethical self-development as indubitable types of human behavior necessarily transcending mere neural activities, is truly empirical and inductive. Those who already share his point of view will welcome his survey of its educational commitments. Those who do not might well at least study his material and conclusions as critically and as objectively as he has studied their own.

LOUIS J. A. MERCIER

Cambridge, Mass.

CONTENTS

	PAGE
<i>FOREWORD</i>	vii
<i>PREFACE. DUALISM VERSUS MONISM IN PSYCHOLOGY</i> by Dr. Louis J. A. Mercier (Harvard)	ix
<i>INTRODUCTION TO THE STUDY OF PER- SONALITY</i>	I
(a) Aim and structure of this book. (b) The meaning of personality. (c) Humane Psy- chology. (d) Method of approach. (e) The meaning of mental hygiene.	

PART I. THE RAW STUFF OF PERSONALITY

I. *THOUGHT*

(1) <i>The nature of thought</i>	17
(a) The quality of man's thinking process: thought outside the domain of time and space.	
(b) Thought and matter. (c) Thought and an- imal instinct. (d) Man the contemplative. (e) Spirituality of thought. (f) Potential infinity of thought.	
(2) <i>Educational conclusions and applications</i> .	33
(a) The quantitative approach to the study of thought: the problem of mental measurement.	

- (b) Educational significance of meaning. (c) The "activity" printiple. (d) The function of the teacher. (e) Apperception and meaning. (f) Integration of mind through meaning.

II. CREATIVE POWER

- (1) *The nature of creative power* 48
- (a) The quality of creative action. (b) Educational significance of aesthetics. (c) The general tendency of man's creative action. (d) The intuitive character of creative action. (e) Autonomy of man's creative act. (f) Creative activity born of contact with reality. (g) Man's creative action as condensation of experience. (h) Structure of man's creative act.
- (2) *Psychological elements of creative power* . . . 67
- (a) Heredity. (b) Instinct. (c) Subconsciousness. (d) Instinct and love contrasted. (e) Imagination and thought contrasted. The nature of "form" in poetry, in music, in drama, in painting. Absence of form in the drawing of an insane person. Form in cubism. (f) The psychology of creative power.
- (3) *Educational conclusions and applications* . . . 87
- (a) The quantitative approach to the study of creative power: the measurement of artistic talent. (b) How to mould a habit. (c) How to inspire. (d) The power of ideals. (e) Training for unselfishness. (f) The sociology of art.

III. THE MAKING OF THE SELF

- (1) *The nature of the self-making activity* 97
- (a) Unique quality of the self-making function. (b) Reflection of the self on the self. (c) The nature of animal habits. (d) Motor and sensitive

habits in man. (*e*) The sphere of righteousness. (*f*) The quality of moral habits. (*g*) The qualities of moral and animal habits compared. (*h*) The natural basis of righteousness. (*i*) The architectonic of moral habits. (*j*) Reason the architect of moral habits. (*k*) Reason and the social instinct. (*l*) Reason and the appetites (food and sex). (*m*) Reason and the emotions (fear and anger). (*n*) The essential unity of character.

(2) *Educational conclusions and applications* . . . 119

(*a*) The quantitative approach to the study of personality. The so-called personality measurements. (*b*) Self-respect the basis of character. (*c*) Strength of will. (*d*) Motivation. (*e*) The significance of action. (*f*) Apperception and motivation. (*g*) Righteousness based on reality. (*h*) Architectonic of character. (*i*) Effort as an ideal.

PART II. THE MOULDS OF PERSONALITY

I. THE PRINCIPAL STUDY COURSES

(1) *Psychological function of the principal study courses* 135

(*a*) A humane educational policy derived from a humane psychology. (*b*) The humane and the utilitarian attitude in education compared. (*c*) Languages. (*d*) History. (*e*) Science. (*f*) Philosophy. (*g*) Religion.

(2) *Educational conclusions and applications* . . . 163

(*a*) Absurdity of the elective system. (*b*) Adaptation of a humane training to the biological development of man. (*c*) Sport. (*d*) The training ideal of harmony.

II. THE LATIN AND GREEK CLASSICS

	PAGE
(1) <i>The psychology of mind-training</i>	167
(a) The meaning of humanism. (b) The problem of classical training. (c) The problem of transfer.	
(2) <i>The psychology of mind-training applied to the classics</i>	175
(a) What are the classics? (b) The doctrine of transfer or mind-training. (c) The doctrine of transfer applied to the history of classicism. (d) The social significance of the classical training. (e) The problem of classical training in contemporary times. (f) The principle of social continuity as a factor in classical training. (g) The spirit of classical humanism. (h) The humane attitude, the highest prerogative in a classical education.	

PART III. THE IDEAL OF PERSONALITY

(1) <i>The nature of personality</i>	197
(2) <i>Christ, the ideal of personality</i>	201
(a) The three basic attitudes of human thought. (b) The intuitive nature of Christ's thought. (c) The analytic quality of Christ's moral genius. (d) The synthetic power of Christ's moral thought. (e) The personality of Christ as a creative genius. (f) The personality of Jesus as a hero. (g) The humanism of Jesus.	
(3) <i>Educational conclusions and applications</i>	219
(a) Possibilities and limitations of school training in the formation of a personality. (b) Personality of the teacher. (c) Educational influence of great historical personalities.	

CONTENTS

xxiii

APPENDIX

READINGS AND POINTS FOR DISCUSSION

	PAGE
Introduction	225
Part I, Chapter I	226
Part I, Chapter II	228
Part I, Chapter III	231
Part II, Chapter I	233
Part II, Chapter II	235
Part III	236

INTRODUCTION

*"Man has to work for his personality, just as he must work for his liberty; and for that he must pay a very high price. Indeed, in the field of action, a man will be a personality (the maker of his own self), only when his reason, by means of organized virtue and inspired by love (no less than by God's spirit) gathers up his soul into his hands—*anima mea in manibus meis semper*—and into the hands of God. For thus he gives to that torrent of conflicting forces within him, the beautiful unity of a moral profile, which is but the seal of his radical ontological unity".—Jacques Maritain, *Les degrés du savoir*.*

(A) AIM AND STRUCTURE OF THIS BOOK

THE aim of this work is entirely practical. It would show how the raw-stuff of original human nature may be transformed into an integrated personality. The structure of the book is consequently very simple.

In its first part it analyses the raw stuff of personality: thought, creative power and the self-making activity. These three characteristic human urges are not studied philosophically but empirically: that is, in their concrete psychological setting and in relation to instinct and emotion, imagination, apperception and the subconscious mind. It is shown further that these three functions are but different aspects of man's spiritual nature and that they cannot be reduced to matter or to any such primitive activities as "association", "conditioning" or "bond-making mechanisms".

The second part of this book deals with the psychological function of the principal study courses, which are, so to

say, the moulds of personality. It explains how these educational instruments (or disciplines, as they used to be called) must be used in order to realize that perfect integration which is the aim of a humane education.

The third and last part of the book is concerned with a concrete ideal of human personality which might serve as an educational standard and as an inspiration.

(B) THE MEANING OF PERSONALITY

Since personality training is the educational ideal of this work, it is necessary to state here in general terms what is meant by personality.¹ It can be studied from two different standpoints: the psychological and the social.

From a psychological standpoint, personality is man's "self-possession". The Roman state denied all personality to a slave because a slave was not his own master: he did not possess himself. Man's self-possession is ultimately based on his rational nature, on the fact that "every-man" knows himself, can control himself and is a responsible being. Consequently Christianity has always defended the liberty of the human personality against all tyrannies: the tyrannies of instinct and emotion, no less than the tyranny of a

¹ A fuller and more concrete treatment of the question will be found in the last chapter of the book. It may be objected that one ought to formulate the complete ideal before starting to analyse it. This, of course, is partly true. On the other hand, no ideal can be grasped fully until one has a concrete and practical experience of the raw stuff from which it is moulded. Life teaches us that human endeavor is somewhat like the discovery of America. Columbus set out to discover the East and he found the West Indies. Experience and factual knowledge made the realization of the ideal somewhat different from that which Columbus had expected. Something similar happens to the educator. It is only when he has mastered the science of man and of the methods by which man is to be trained that he realizes the full significance of his educational aim.

totalitarian state. Personality, in this sense, is simply another word for freedom, which is the first quality of a rational nature. Further it implies firmness, richness and unity of character.

But personality has another meaning. Man is not an isolated being. He lives in society and his reason naturally irradiates and has an influence on others. If a man is a deep and original thinker, a great artist, or a noble unselfish character bent on serving his fellow men, these manifestations of his rational nature are noticed by his fellow citizens who draw benefit from their power, their beauty and their moral greatness. Such men are loved by their community and their personalities stand out like great landmarks in the history of mankind. This is the social aspect of personality.

In any case, personality always is rooted in man's rational nature. Reason does exist in man, and it is shown in this book that all education consists ultimately in developing that reason,² in order that it shall triumph over matter, over the animal elements of man's nature, over environment and over society. This triumph of man over his social milieu is ultimately the victory of love over selfishness in the service of any worthy common cause.

(C) THE MEANING OF "HUMANE PSYCHOLOGY"³

A few words are necessary concerning the title of this book. Humanism was a historical fact long before it

² By developing reason is not meant a radical transformation in the inherited capacity of the mind but the assimilation of skills and ideals. A fuller treatment of this topic will be found in Chapter II of Part II.

³ See J. Castiello, *Real Psychology in Education* and *The Problem of Integration in Educational Psychology*, Fordham University Educational Bulletins, 1936.

started being a conscious attitude of mind or a cultural tradition. A singularly harmonic people, the Greeks, produced an extraordinarily harmonic culture. The Greeks were neither pure intellectuals, like many scholastics of the middle ages; not merely efficient administrators, like so many great Romans; nor again creatures of emotion and imagination, like our romantic artists. They were a happy blending of all these qualities and what is more they embodied this ideal of balance and harmony in their works of art, their history and their political life. Thus was the humanistic tradition started. It can be summarized in the phrase: "*mens sana in corpore sano*", "in a well balanced body a well balanced soul."

This tradition is dualistic because like Greek culture it takes into account the dual nature of man, which is material and spiritual. It is harmonic because it aspires to give to everything it touches a harmonic form. It appeals to the totality of man's psychological structure which is sensitive, emotional and intellectual at one and the same time. It is idealistic because it is connatural to man to be idealistic. Man is partly spiritual and he seeks in all things the ideal element which explains them and in a way transfigures them also.

Let me add that this attitude is not the exclusive privilege of any race although the Greeks seem to have possessed it in a far higher degree than any other people. Nor is it identified with the study of any literature. Though some literatures are more steeped in it than others, it can be acquired in the Bible no less than in Homer. Again, it is not a question of subject matter, as if, for example, it could be practised in literature but not in science. In these days

the term "scientific humanism" has become popular to the joy of all those who still remember that in Plato's *Republic*, a text book of humanism, if ever there was one, the study of science is a necessary prerequisite for education, and that for a space of no less than ten years.⁴

That being so, it will be seen why humanism has always been specially concerned with man. Humanism is spiritualistic and in the scale of visible creatures, man is the richest in spiritual and ideal values.

Great as the ideal of humanism undoubtedly is, it is obvious that its realization need not always be perfect. Greece realized it better than Rome. Moreover, it will always be strongly colored by the peculiarities of national temperament. Spanish humanism will always tend to be somewhat baroque; French humanism has from the beginning been strongly rationalistic; German humanism lacks the crystal clarity of the Greek or the French.

These being the essential qualities of humanism, it is easy to see why it humanises. It will always lay an emphasis on the spiritual element of things. In that way it will naturally develop reason which is the characteristically human coefficient. But it will not neglect imagination and emotion, since it aspires to be in harmony with the totality of man's nature. This comprehensive view of things, this love of the totality, is something characteristic of humanism.

There is no doubt whatever that classical humanism was fundamentally colder and more exclusive than the humanism which has been cultivated in Christian society. "Odi profanum vulgus", wrote Horace. But that is simply a

⁴ See E. Herriot: *Sur l'Humanisme Scientifique*, Paris, 1922.

sign of its weakness and limitation. Aspiring as they did to the highest ideals, pagan humanists felt incapable of transferring their ideals in any way whatever to the masses. They lacked charity. Of course, this raises the problem of whether the masses are capable of assimilating humanism at all. The answer is that in a certain measure the great popular cultures of Christian nations, such as Italy, Flanders, Spain are undoubtedly saturated in a rough but genuine humanism. Against this fact no a priori theory is valid. Christian humanism is consequently warmer, more benevolent, gentle and kind than its classical counterpart. Not that this quality is absent even from classical humanism. Plato insists on the necessity of this "gentleness", and Cicero speaks of "humanitas" in contradistinction to the raw brutality of uncouth barbarians. But this humaneness is based really on the fact that man is a reasonable being and that he has conquered his animal ferocity by subjecting it to the rule of reason. Such a conquest however does not happen by accident or by just leaving things to chance. It is the fruit of idealism, effort, study and discipline. Since its ultimate effect is that it refines and humanises, educators have called this sort of training "humane."⁵ They speak of humane education and humane letters, "litterae humaniores".

In speaking of a "humane psychology of education" the word "humane" is used then in this last sense, indicating therefore a psychology which will not be concerned exclusively with the animal urges of man, which will not reduce the human functions to animal activities or to mechani-

⁵ See definition of "humane" in Murray's *English Dictionary* and in Webster's *New International Dictionary*.

cal jerks in the style of the knee-reflex⁶ but which shall take into account man's entire nature animal and spiritual. Humane psychology, making man conscious of all that which is specifically human in him, humanises him, refines him, and facilitates the triumph of his reason over his animal drives by investing it with the organized power of thought, love and self control.

A psychology of education which does away with reason⁷ and is concerned exclusively with man's animal functions,⁸ or with the interpretation of his human functions in terms of the mechanical S-R theory,⁹ cannot humanise. It will

⁶ "There is of course no gap between reflexes and instincts, or between instincts, and the still less easily describable original tendencies. . . . Much labor has been spent in trying to make hard and fast distinctions between reflexes and instincts and between instincts and these vaguer pre-dispositions which are called capacities. It is more useful and more scientific to avoid such distinctions in thought, since in fact there is a continuous gradation". E. L. Thorndike: *Educational Psychology*, New York, 1927, p. 4.

⁷ "There are three current opinions concerning the original capacities of man to learn, that is, to strengthen and weaken bonds in behavior, which seem contrary to fact. First is the opinion that attention, memory, reasoning and the like are mystical powers given to man as his birth-right, which weight the dice in favor of thinking or doing one thing rather than another, however the laws of instinct, exercise and effect make the throw. This opinion is vanishing from the world of expert thought and no more need be said about it than that it is false and would be useless to human welfare if true". *Ibid.*, p. 73.

⁸ "On the whole then we can see a clear and simple and easy course of mental evolution from the mind of a cat or mouse or rabbit that acquires a few thousand mental connections by muscular trial and error, and success, to the mind of a man who surveys the whole situation, analyzes it into its elements, enacts various programs in the symbols of thought, and selects the successful one by inner judgment of its worth. No new kind of brain-tissue is needed, no new varieties of neurones are needed, nothing save a mere increase in the number of associative neurones". E. L. Thorndike: *Human Learning*, New York, 1931, p. 181.

⁹ "One may use several useful abstract schemes by which to think

necessarily destroy all personality. It will glorify instinct and mechanize all learning, reducing it to its lowest form, "association" or "bond-making."¹⁰ It will neglect the acquisition of aesthetic ideals and will take no notice whatever of human freedom,¹¹ and of the moral issues which are essentially bound up with responsibility. It is extremely significant that, with the exile of reason from text-books on educational psychology moral principles and aesthetics have been banished too and there has been an irruption of deterministic animal psychology into the field of education.¹² Only a short while ago it was claimed that education would profit "immeasurably" by the study of the anthropoid apes.¹³ It is no less significant that the appeal to

of man's original equipment of reflexes, instincts and capacities. Perhaps the most convenient is a series of S-R connections. . ." E. L. Thorndike: *Educational Psychology*, New York, 1927, p. 7.

¹⁰ "Learning is connecting, and man is the great learner primarily because he forms so many connections . . . There are millions of them. They include connections with abstract elements or aspects of constituents of things and events, as well as with concrete things and events themselves". *Ibid.*, p. 173

¹¹ "It must not, however, be taken to mean that the result of an action set up in the sensory neurones by a situation is essentially unpredictable . . . in the same organism, the same neurone-action will always produce the same result—in the same individual and really same situation will always produce the same response". *Ibid.*, p. 6.

¹² "Nowhere more truly than in his mental capacities is man a part of nature. His instincts, that is his inborn tendencies to feel and act in certain ways, show throughout marks of kinship with the lower animals, especially with our nearest relatives physically, the primates. His sense-powers show no new creation. His intellect we have seen to be a simple thought extended variation from the general animal sort. This again is presaged by similar variations in the case of the primates. Amongst the minds of animals that of man leads, not as a demigod from another planet, but as a king from the same race". E. L. Thorndike. *Human Learning*, p. 182.

¹³ Quoted in an interview with Dr. Yerkes of Yale University published in the *Literary Digest*, Nov. 1935.

reason is disappearing from many class-rooms. For example, children are only to be taught art when they spontaneously look at a picture and feel an emotional interest in it; in other words when they "feel like it".¹⁴ Such an education does away with "willing", which can indeed be present even when "one does not feel like it". Self control and sacrifice naturally go overboard, and children receive a soft, maudlin sort of training. It is well to remember that in order to conquer life man must start by conquering himself.

Training a personality is therefore something more than just turning out an efficient lawyer, doctor or engineer. Not that this professional efficiency is in any way to be despised or neglected. On the contrary. But the more efficient a man is in his profession, the more dangerous he becomes if he is a criminal. Besides being a professional, man is a social and a moral being. He must be integrated in the world around him and he must learn to discipline his life in the light of moral principles.

Pleading thus the cause of personality, this book is pleading for something eminently useful and practical. Indeed it is not the humane educator who is impractical but the so-called practical man who is contented with mere money-getting efficiency. As if in the long run society could subsist and efficiency be of any use whatever in a community made up of criminals.

(D) METHOD OF APPROACH

The method of approach to these problems is not essentially different from that adopted in other educational

¹⁴ See M. Garden: *The Activity Movement*, New York, 1936.

psychologies. Facts are described, their nature examined and conclusions drawn. It is ultimately a question of applying thought to reality, the reality in this case being the specifically human activities, such as the abstraction of meaning, the creation of form and the making of one's own moral self by adherence to the principle of righteousness. In all these cases the quality of the human urge is examined and carefully compared to the quality of analogous animal drives, the specific objects of these functions are analyzed, and from the nature of these objects, that is, of meaning, form and righteousness, the quality of the human activity which attains them is derived.

Although the experimental data on which all these proofs are based is superabundant, it has been drawn upon sparingly: first, because it is available to everyone¹⁵ and the sources are always given where such data may be collected; secondly, because it is not the aim of this book to make an exhaustive study of the question, but to sketch out in bold clear outline the general structure of man's characteristic urges and to show their educational significance. It is hoped, perhaps rashly, that research students may be moved by such a statement of the problems to investigate further and to fill in this outline with more luminous detail.

It will be seen in the course of this book that what one might call a traditional approach is often adopted in solving a problem. That is, the author accepts as valid argument the introspective experience of great geniuses, even if they

¹⁵ The experimental data on the higher functions of man has been admirably summarized in the monumental synthesis published by Fiebes: *Lehrbuch der experimentellen Psychologie*, Freiburg, 1928.

have not experimented in the strict and modern sense of the word. The reason is that there is no essential difference between the traditional and the experimental approach to the solution of any important psychological problem. This will seem a bold assertion to modern experimental workers, because they generally neglect the traditional approach in any psychological question. But whoever takes the trouble to study the psychology of habits in Plato or St. Thomas, for example, and then compares their opinion with the conclusions of modern psychology, will see for himself how little has really been added in this matter to the common fund of knowledge. Exactly the same is claimed for the whole problem of transfer and for all other important psychological problems. It is always a question of more detail. The general frame of the problem remains unchanged.

This will not seem so strange when one considers that man, whether he be an experimental worker, an empirical observer, or a philosopher, does not think in specifically different ways. All men base their conclusions on reality according to the same laws of thought. The mind of man does not change radically because he happens to put on a white apron and enters a room called an experimental laboratory. In dealing with introspection, exact material instruments do not add anything very significant to the experimental technique. The author therefore feels justified in accepting the introspection of great geniuses as a valid argument. They very often sum up in themselves the experience of a whole era. In assimilating their thought, one is simply thinking with the thought of the race. And if this has a sobering effect and makes the creation of brand

new theories much more difficult, it has however this advantage: it generally prevents one from inventing gun-powder in the twentieth century.¹⁶

(E) MENTAL HYGIENE

The clinicians probably will find this book much too optimistic. "It is all very well to speak of integrating personalities", they will say. "But how many men are capable of such an integration? The hysteric changes his attitude as a man might change his coat. The zyklthymic temperament is essentially unstable. The schizothymic personality is not perfectly integrated in the world around him. All these are facts and we know that in practical life the difference between the insane and the neurotic is merely one of degree."

All this may be true. But the ordinary teacher ought not to take the attitude of the clinicians. Thanks to their protracted contact with abnormal personalities, clinicians have a gloomy out-look on life. A teacher, though remaining in contact with reality, has every reason to be optimistic, and

¹⁶ The following words of Edward Spranger, Professor of Education at Berlin, are worth pondering. They are to be found in the introduction to the English translation of his *Lebensformen*. He writes: "Some people have objected that this book abandons the concrete ground of experience and reduces psychology to mere speculation. I cannot admit this objection, and beg indulgence finally to indicate the reasons for my stand. Psychological experience is not gained only in the laboratory or the clinic or merely from contemporary human beings, but also from the vast number of men of the past of whom we know only through documents. We need this broadening of our experience all the more since otherwise we should learn only psychological phenomena which correspond to our cultural determinants. What is the value of the most comprehensive mass-statistics compared to the enormous material of different psychic structure which history transmits to us?" E. Spranger: *Types of Men*, Halle, 1928.

must be so, if he wants to have any influence whatever. After all, the majority of boys under his care will be normal, and to these he must address himself, not to the abnormal. Take the following example. The man who writes a song knows very well that few singers will be able to sing it well. He writes it none the less, in accordance with his ideal of beauty. He need not, while writing, take into account all the voice defects which plague human nature. It is the same in education. We cannot change the ideal just because a certain number of boys and girls will never be able to measure up to that ideal. We will sympathize with their deficiencies, and we will do our best not to depress them by giving them a sense of inferiority. But we must remain true to the ideal, if we do not want to betray the sane part of mankind, which simply must live up to the noblest aims of education. All this merely proves, that in order to avoid as far as possible "inferiority complexes", there should be different schools for different types of boys. Psychopathic children should not be brought up in the same establishments as normal children. It is bad for both sorts.

Moreover, the principles and the general educational policy put forward in this book will be found to be very much in harmony with the fundamental principles and methods of mental hygiene recommended by specialists in abnormal psychology. McDougall¹⁷ insists on the value of integration as a means of forestalling psychic dissociation. He also recommends art as a preventive therapeutic measure. The excellent work realized at Besford Court in

¹⁷ See William McDougall: *Outlines of Abnormal Psychology*, New York, 1926, Ch. 29.

England¹⁸ is based largely on the principle of creative activity, as a means of giving abnormal boys a sense of confidence in themselves. The author's own experimental work with "problem children" in Germany has shown him how true it is that the consciousness of practical efficiency in a given field has a general hygienic effect on the character of boys.¹⁹

Finally, all clinicians agree that it is the sense of insecurity which is at the root of many neuroses. But what better means of combating such insecurity-fears than a strong moral and religious idealism? It is the mistrust of man in the powers of his reason and will which damage his personality more than anything else. Man's trust in reason naturally must not be blind. But reason and will can do a lot, as history has shown again and again. It is an evident sign of decadence when men begin to doubt themselves. Today, as 2000 years ago, the Roman's phrase holds good: "posse, quia posse videntur"—"He can, because he has the conviction that he can."

¹⁸ See *Besford Court Annual Reports*, 1928-1930, 1931-1932.

¹⁹ See J. Castello: *Geistesformung: Beiträge zur experimentellen Erforschung der formalen Bildung*, Berlin, 1934.

PART I

THE RAW STUFF OF
PERSONALITY

I. THOUGHT

ἡ ψυχὴ τὰ ὄντα πῶς ἐστι πάντα ¹—ARISTOTLE

(I) THE NATURE OF THOUGHT

(A) THE QUALITY OF MAN'S THINKING PROCESS

SIR JAMES JEANS, a great astronomer and a truly artistic and cultured mind, has written an admirable book in *The Mysterious Universe*. But what is the mystery of the universe compared with the mystery of man? The mystery of the universe is, after all, the mystery of matter, motion and physical energy. Distance, however, does not alter the nature of motion. Whether we expand our measures to billions of years of light or reduce them to the billionth part of a millimetre, that does not change the nature of extension. Energy remains energy whether it be distributed over the surface of the universe or of a soap bubble. Expanded or reduced, matter remains matter. That is, it remains something capable of motion, but "sunk in itself" and incapable of a living conscious contact with realities outside itself. Thought, however, is capable of such a contact. As great geniuses, from the great pre-Socratic thinkers down to Hegel, have always pointed out, the peculiarity of thought is this: that remaining itself it is yet capable of be-

¹ "The soul is capable of being all things through knowledge." Aristotle *De Anima* (431, 20-21).

coming everything through knowledge. It is in a very real sense one and many. That is precisely the reason of its incomparable greatness.

We must not allow ourselves to be overwhelmed by sheer mass, or weight, or speed, or extension. The universe, in so far as it supports our material bodies, does contain us and even overwhelms us with the sheer mass and the size of its immensity. Before it, we feel as a little ant might before the towering heights of Mount Everest. But the fact of the matter is that, if the universe contains us materially, in the realm of thought it is we who contain the universe. Materially, the world can be as great as you like and man as little as you please. But in the sphere of thought and consciousness, the tables are turned. Incredible as it may seem, it is the thought of man which holds the world in its intellectual grasp, penetrating it with its scientific concepts, discovering its laws, mastering its forces, reconstructing its past history and controlling its future by foresight and accurate calculus. Millions of years of light become as nothing if man has the instruments which can control them. Compared with the material immensity of the universe, the body of man may be like a speck of dust on the surface of the earth. For all that, this speck of dust is greater than the earth and the universe, since the speck of dust can think and the universe cannot. While the universe remains "sunk in itself", as St. Thomas says of all matter, unconscious and unthinking, the thought of man circles the stars and penetrates the atoms, bathing the whole creation like a sea of invisible light. Expressing all this in more technical language one would say that thought lies without the realm of mechanical causality and that in

its own limited way it dominates extension and controls time.

(B) THOUGHT AND MATTER

It is the first quality of matter that it is extended. Because it is extended, it can be measured by means of any arbitrary unit: a yard or a metre. In the concrete and as things are, extension is always three-dimensional. It has mass and can therefore also be weighed. Measurement, reduction to arbitrary units of length or mass, is a characteristic feature of matter. Further, because matter is extended, it is co-extensive with space and can pass from one part of space to another. This passage is called motion and it is realized by means of energy. Extension, motion and energy, then, are three essential characteristics of matter and they are all three measurable.

Let us take a concrete case. I have upon my table a copy of the *Summa Theologica* of St. Thomas Aquinas. I measure it. It is six inches by nine inches. I weigh it. It weighs a pound and a half. I open it and I notice that it is covered with signs or symbols printed in black ink. I can count the signs and express them in numbers. I can measure them and draw up statistical charts of their frequency. More, I can send the book to a chemist and have it analyzed. The paper will be made up mostly of cellulose and the ink, let us say, of some sort of aniline. I also can send the book to a physicist and have him treat it with electricity, X-rays or radium. I can pour abundant chemical or physical energies on that venerable book and I can obtain a tolerably accurate knowledge of its material components. But do you think that I can get at one single idea by those means? Can I

reach beyond the extended paper and ink to the meaning of the book? Am I any the wiser as to the content of St. Thomas's work? Obviously not. I could go on analysing chemically and physically for all eternity.

Physical or chemical energy cannot touch that which we call "meaning", any more than a shadow can knock down a wall. Meaning is not tangible to matter, because matter and meaning belong to different spheres of reality. Meaning is not extended. Meaning is simply the seal of man's reason. This seal can be put into sound, and the sound becomes a language; it can be put into arbitrary lines and curves, and they become writing; it can be put into human movements, and these movements become gestures. Language, writing and gestures are, therefore, meaning incarnate in matter. In these composites of matter and meaning, matter can touch the material element, the paper, ink, sound and motion. It cannot reach the non-material element: the meaning. Yet this meaningful element is more real than the material. In writing, the paper and ink are for the meaning; in language, the sound is for the meaning; in gestures, the motion of the limbs is for the meaning, and not vice-versa. Here, then, we have something which cannot be reached with material instruments, because it offers no contact to material energies and yet is more real than matter itself.

We have seen that matter cannot cope with meaning, but thought can. What all the chemical and physical instruments of the world cannot do, the mind of a little child does, because it can think. What, then, is the nature of thought; of this mysterious instrument, so simple and yet so strong that it can achieve something which all the ma-

chines of the universe, big and small, cannot realize? If its specific object is meaning, and if meaning is not extended, can the instrument be extended? If experience teaches anything, then it teaches us this: that the nature of an instrument must be adapted to the nature of its object. An oculist cannot perform an eye operation with an axe, and a wood-chopper cannot fell a pine with a surgeon's knife. Object and instrument are intimately correlated. Whence we deduce that if the meaning is not material, the organ of meaning, its connatural instrument, cannot be material either. Thought, the human urge after the meaning of things, is, therefore, a spiritual function.

(C) THOUGHT AND ANIMAL INSTINCT

If matter cannot touch meaning, because matter is extended and meaning is not, then it is irrelevant for the question whether matter is organized or not. The organization will not change the nature of matter; organized or not, it will remain extended. However, materialists claim that if we organize matter efficiently enough, in other words, if we use living matter, we will be able to cope with the meaning of things. They bring us as an argument the example of animals, especially of apes, for whom they claim the prerogative of intelligence and the power of thinking. Instinct, they say, is a lower form of intelligence. But it is intelligence, and therefore capable of thought. This argument is specious, and it will be necessary to follow it up.

The claim that animals are intelligent, in the strict sense of the word, has been advanced by many psychologists, including Professors Köhler of Berlin and Yerkes of Yale.

Professor Yerkes, for example,² goes so far as to say that if chimpanzees had the tendency to imitate sound, which parrots have, then chimpanzees would speak. In other words, chimpanzees are simply like deaf and dumb children. They cannot imitate sounds, and therefore they cannot speak. But they think, just as deaf and dumb children think.

Why, however, do not these "thinking" chimpanzees at least make signs with their hands and fingers and develop a mimic language, as deaf and dumb children do. If they are capable of imparting meaning, which is the very essence of language, then why don't they impart this meaning to the movements of their organs? Why don't they impart meaning to certain material forms and start a written language? In that way they would have a medium of exchange for their thoughts.

From this it will be seen that, ultimately, the whole question of animal intelligence resolves itself into the problem of meaning. Do chimpanzees really attain the meaning of things? Or do they consistently seek in matter that which in some way or other allays their food-, sex-, or movement-appetite? Is their sphere that of meaning, or that of food, movement and sex? One cannot hold, as some psychologists do, that the fundamental problem here is whether chimpanzees modify their behavior, adapt and readapt their movements gradually or suddenly, by trial and error or by some sort of concrete insight. The fundamental problem is, whether they do it in function of sex, motion or food, or in function of meaning. In order to

²Yerkes and Learned: *Chimpanzee Intelligence and its Vocal Expression*, Baltimore, 1925, pp. 53-56.

answer that question, I must look a little closer into the respective natures of instinct and thought.

Instinct is an unlearned pattern of behavior. It is common to men and animals and its characteristic feature is that it is not acquired by practice, but that it is inborn. A duckling does not learn to swim. The moment he touches water for the first time he knows how to move about in that medium. A baby never learns how to suckle. The moment he places his mouth on his mother's breast, he can do it. Many other examples could be adduced. The characteristic thing about instinct is that it is unlearned. Thus animals know how to move, eat, fight, take to flight if necessary, and mate, instinctively, just as soon as the organs which are destined for these functions are mature.

It is due to these instincts that animals can learn anything. A rat learns the pattern of a maze because it can move and because it has an inborn urge after food. But were the rat incapable of motion or had it no appetite for food, it would be impossible for it to learn any pattern whatever. Animal learning presupposes, therefore, unlearned inborn drives. The function of animal learning is merely to reorganize and to fix inborn tendencies. But this must be noted. An animal cannot be taught to learn anything, that is, to modify its movements into any new definite, consistent pattern of behavior, if it is not in function of food, or of sex, or of fear, or simply in function of its natural tendency to move about. The animal's activities are tied and fettered to sex, hunger, fear, or muscle-play. With these material levers, their behavior can be modified. Without the help of some one of these material urges they cannot be made to learn anything. As Köhler has shown,

a chimpanzee can learn to perform many and very interesting stunts: it can be made to telescope two short pieces of bamboo into each other in order to have a long stick and in this way reach a fruit which was not within the range of either of the two short bamboos taken by themselves.³ It can be made to stack two, and even three, boxes in order to get at a bunch of bananas otherwise out of its reach. But the interesting point is this. All these modifications of natural behavior are realized in view of food. The sphere of interest remains invariably that of extended food, or of sex-drives, fear-drives or aggression.

Is this also the case with man? Can man's behavior be moulded only in function of food, or sex, or self-defense or muscle-play? The following concrete case may throw some light on the question. In a biological laboratory, a man and a monkey are eating some fruit, say a banana. Both man and monkey have a natural urge after food. So far they are alike. They are also alike in that both the man and the monkey can learn to modify their behavior in function of food. For example, the habits which a little boy has to learn in order to eat his food with good manners are learned, at least in his infancy, in function of food-appetite. But if a likeness is there, the discrepancy is infinitely greater. After the man and monkey have finished eating the man goes to his desk, pulls out a microscope, places very thin slices of banana under the lens and starts studying the biological structure of the cells in the fruit tissue. What is he now after? Food? No. He is not interested in the banana as something which can appease his hunger; he now wants

³ As a matter of fact this feat was only realized once and then, it seems, by accident. See Kohler's fascinating book, *The Mentality of Apes*, New York, 1931.

the biological formula of the banana, its scientific meaning. The banana was food for his stomach. It is now food for his thought.

Give the microscope now to the chimpanzee. Give him another banana. The chances are that he will smell, lick and bite the microscope and, further, he will certainly devour the second banana, just as he devoured the first. The banana is an extended three-dimensional object, capable of stimulating his hunger, and the chimpanzee is tied down to this aspect of the fruit. It has no interest in the scientific meaning, because it has no organ for the meaning of the fruit. But because the man on the other hand has the urge for the meaning of the fruit he organizes his movements, he trains his hands and his fingers to execute all the movements required in order to handle the microscope. And he is not acting in function of food, but in function of meaning of what might be called the soul of the thing. Here, then, is an essential difference between chimpanzee and man. The monkey learns only and exclusively in function of material, three-dimensional stimulants. Man learns in function of truth. That is why universities exist and sciences are cultivated. Just as man can speak because he can impart meaning to matter, he is capable of science because from matter he can derive meaning. Not only inorganic matter, then, but also organic matter (even highly organized into animal instinct) is absolutely incapable of thought.

(D) MAN THE CONTEMPLATIVE

In a fairly recent and very interesting book, *The Ape and the Child*, by Professor Kellog and his wife,⁴ the following

⁴ Kellog and Kellog: *The Ape and the Child*, New York, 1933.

amusing description is found which seems to be significant and even symbolical. Into the household of the Kellog family, which had one little boy called Donald, was introduced for purposes of experimentation, a little chimpanzee called Gua. Professor Kellog and his wife wanted to see how far a chimpanzee could be humanised by putting him from his infancy in truly human surroundings. Gua was allowed to live with Donald, to go about dressed like him, to sleep in a child's bed, to be Donald's constant playmate and in fact a real member of the Kellog family.

One day a film was shot of Donald and Gua having a meal. Later the film was projected on a screen in front of the ape and the boy and their respective reactions were carefully noted. Donald looked on very pleased; he watched; he contemplated. Gua scuttled down immediately from her chair, rushed up to the wall and started licking and biting the piece of wall on which the fruit was projected. This fact is most interesting as showing in a very picturesque way the respective nature of a human want and an animal drive. Donald had a disinterested attitude in the film. He wanted to see. Seeing in itself and for itself, in other words contemplation, was enough for him. For the little chimpanzee, knowing and contemplation in themselves meant nothing. Seeing and sense activity were for eating or for satisfying any other biological urge.

The whole scene seems symbolical of man's history and of the history of animals. On the one hand is "man the seer", the contemplator, who wants to know for its own sake, driven by a want of something which transcends his biological urges: the want of truth, the need to interpret the world, to read the meaning of things and to

build up the glorious edifice of science. On the other hand is the animal, the eater, the preserver of himself and of his species, riveted by hunger and sex to the concrete objects of sex and hunger which stimulate his drives. The one is a slave and a prisoner of concrete material instinct, the other, a prince and a free man, living in the open infinite space of intelligence.

(E) SPIRITUALITY OF THOUGHT

There is, then, this irreducible difference between instinct and thought. Their objects belong to essentially different spheres of existence. Instinct is not made for truth but for the conservation of the individual and the species. It is held down to smell, taste, sex, fights, flights or muscle play. That is its sphere. It is consequently riveted to individual, concrete things: to this banana, to this mate, to this enemy, to this or that concrete movement. Material objects are always concrete and individual. That is not the case with thought. Thought reaches up to the meaning of things, and meaning is by its very nature general, universal and absolutely irreducible to extension, or mass or movement. Each fruit is individual and concrete. But the biological formula of the fruit, its scientific meaning, is general because it can be realized and is, as a matter of fact, realized in all individuals of the same fruit species.

From this it will be seen how bald and shallow is that psychological conception which makes the characteristic function of man's mind into a bond-making activity, and the whole process of thought one of mere association: that is, of bundling sense impressions into heaps or jumbles. Association is ultimately a juxtaposition, a gluing-together,

a stitching-together of mental images, which, after all, since they are merely images of concrete individual things, must remain as concrete and as individual as the things which they represent.

That is precisely what meaning can never be. For a sense impression or an image is of this or that. And this cannot be that. This is this and remains this. This color, this sound, this smell, this taste has its own individual un-multipliable being. But the strange thing about meaning is, that being this, it is at the same time the meaning of that and that; being one, it is identified with an infinite number of possible and real, concrete, individual things. The meaning of frog, for example, is the same in such different sounds as grenouille, rana, Frosch and batrachos, which are the French, Spanish, German and Greek expressions corresponding to that meaning. Moreover it is the same in all real, living frogs. Within the same language, we have one and the same meaning, for example "color" identified with such different things as red, blue, yellow and green. And in an infinite variety of triangular shapes, we have exactly the same meaning (triangle) realized again and again. Nor is the triangle, taken as a general meaning, a sort of wastebasket into which an infinite number of differently shaped triangles may be cast. A basket-full of triangles remains a basket-full of perfectly concrete individual triangles, none of which can be identified with the rest. But the meaning triangle can be identified with every single one of those totally different shapes. Being one, it is yet multiplied in the many.

The making of such oneness is not a process of associating, fusing, gluing or stitching together, but of abstracting

a general concept. Naturally, this abstraction is based on direct contact with different kinds of triangles. It is not made out of nothing; nor is it simply the creature of one's mind, as Kant would have it. Further, it cannot be reduced to a mere mechanical reaction, answering a jerk from outside with a jerk from inside. It is something infinitely more complicated than that.

In the first place, thought is something which is capable of grasping and extracting the essentials of a triangle from an infinite variety of different triangular shapes. This picking out of essentials supposes a comparison and a choice. Comparison is a most curious mental phenomenon. It presupposes that the same thought is at the same time in each one of the two triangles which it is comparing and at the same time in both. Otherwise how could it compare? But this feat of being entirely in each of two triangles and at the same time in both is a feat of which no extended material thing has ever been capable. The first yard of a rope simply cannot be entirely in itself and, at the same time, entirely in the second yard. Only something immaterial, something which has no parts, is capable of this kind of action. Of course one cannot imagine such a thing. But imagination is not thought. A certain hopeless incapacity for abstract thought, for contemplating the rational essence of things is the very root of deterministic, mechanistic psychology.

Thought, then, is an immaterial function which stands above matter; grasps it, not by juxtaposition of extension to extension, as the hand does, but by compenetration of its parts with its own indivisible oneness; then it proceeds to compare, choose and abstract the essentials. Conse-

quently, it dominates matter; it is not its servant, but its master; it is autonomous; it is free.

This autonomy of thought, however, does not release it from all contact with matter; nor relegate it to a purely abstract immanent world, as Kant thinks. If thought is not the same as the senses, if it is not to be identified with smell, taste, touch, sight, or hearing, because it reaches to that which none of these senses can touch: the meaning; thought is none the less dependent on the data which the senses provide.⁵ Meaning is not arbitrarily projected on but deduced from reality. It is the result of an intimate compenetration with real things. It is one in itself, but it is extracted from the many.

Because of his thinking power, man is liberated from the bondage of concrete, individual things and is plunged into the broad space of universal ideas. Not only does he dominate individualized matter by means of general concepts; but those general concepts he gathers up into still more general ideas, till he can grasp the whole of the universe under the general concept of being. The grasp of human hands may be so weak that they can barely hold a handful of earth. The grasp of human thought is so strong that it can hold the entire created reality in its clutch.

(F) POTENTIAL INFINITY OF THOUGHT

It will be clear from what we have just seen that the urge of man's thought bears him irresistibly towards the

⁵ Studies in the psychology of language have shown that the first concepts of the child are, so to say, tainted with matter, showing their origin from contact with reality. For a two-year-old, a dog is a bow-wow, a bath is a splash-splash, a watch is a tic-tac, etc. See W. Stern: *Psychology of Early Childhood*, New York, 1930, ch. 8.

meaning of things. The history of science is one more proof of this assertion. The history of man is one long adventure in search, not of the golden fleece, but of the meaning of himself and of the universe in which he lives: the meaning of matter in chemistry and physics; the meaning of life in biology; the meaning of man in anthropology (of which psychology is but a part); the meaning of all things regarded as one integrated unity in philosophy; the meaning of all mutable, contingent things in God.

In this search for meaning, one thing is obvious: the thought of man is never satisfied. Take the history of chemistry, which is perhaps the easiest to summarize. Long, long ago, many hundreds of years before Christ, men asked themselves one of the first scientific questions: what are things made of? What is matter? What is the internal constitution of things? And some answered with Thales (642 B.C.): "Things are made of water. Don't you see how all living things assimilate some sort of liquid?" And others with Anaximander (645 B.C.) said: "No. Behind the four elements, fire, air, earth and water, there is some common element which constitutes them all." Anaximenes said that things were made out of air, because without air, nothing could live. And Pythagoras, who had noticed that the tone of a vibrating chord depended on its length, asserted that "measure" and "number" were the ultimate essences of things. Democritus suggested that, since rocks decayed and turned into sand, and sand turned into dust, maybe the last elements of matter were atoms, infinitely small but of different shapes. He added that things, and even men, were simply "heaps" of such atoms. There was no internal organization, no principle of order. Aristotle

denied this, and defended the existence of "form", that is, of order and finality in the constitution of inorganic and organic matter. Then came the Arab doctors with their quaint theory of the three elements: mercury, salt and sulphur; mediaeval alchemy; the scientific curiosity of the Renaissance, which led up to the phlogistic theory of combustion, the discovery of oxygen by Priestley, the introduction of the quantitative method in chemistry by Lavoisier, and the formulation of a new atomic theory. Now we have gone beyond that. We know that even the atom can be disrupted and that the electron seems to be the ultimate constituent of things.

In the meantime, while men were busy with these general problems and even the most primitive of humans formulated some sort of general law, made instruments, dabbled in art and practiced some form of worship, animals, including anthropoid apes, kept busy reproducing the species, eating and drinking, chained by the very nature of their urges to purely specific activities and concrete, individual and material things. Thus it is that in the history of animals there is no progress, whereas progress is the very essence of man's history. For as we have just seen, the history of chemistry (and it is the same with all other sciences), is but the history of successive and better theories, today defended, criticized tomorrow and soon discarded, not in favor of an entirely new conception, but of a deeper one. Something of the old remains; but something new is added. So it goes on and on. That proves that there is in the mind of man a certain potential infinity which cannot be satisfied with any partial truth but desires to drink of its fulness in the supreme source of all meanings.

The story of human thought may be likened to a journey which a man might make out of Rome along the Appian Way. On both sides of the historic road one sees nothing but sepulchres. There they lie, in beautiful silent gardens, guarded by tall cypresses like sentinels. So, along the road of human progress, one sees on both sides the tombs of innumerable hypotheses, and the thought of man goes on and on, never satisfied with any knowledge which falls short of a full intuition: an intuition which, in this life, cannot be realized. For in this world of shadows we have but a foreshadow of the truth, something like the presage of a future perfect intuition. What matter? If the bud is the presage of a rose, shall not these buds of truth mature one day into the glory of a perfect revelation?

(2) EDUCATIONAL CONCLUSIONS AND PRACTICAL APPLICATIONS

(A) THE QUANTITATIVE APPROACH TO THE STUDY OF THOUGHT. THE PROBLEM OF MENTAL MEASUREMENT

The present psychological analysis has been mainly concerned with the qualitative aspect of thought. The facts brought forward have shown that thought is an immaterial, spiritual urge which is essentially different from and consequently not reducible to any mechanical process or animal activity whatever.

Thought can also be studied as an instrument of achievement. From this standpoint one is naturally interested in its practical efficiency in any given domain, whether it be in a field of theory and abstract knowledge, such as pure mathematics, pure physics, pure chemistry, pure biology

or philosophy (theoretic reason), or in a field of applied science, such as engineering, medicine, education or government (practical reason). Considered as a practical instrument of achievement thought is called intelligence.

One of the fundamental preoccupations of psychologists in our times has been and is still the invention of so-called mental measurements or tests which shall tell us in terms of standardized units the native potentiality and the achievement capacity of any mind. In other words psychologists are looking for the yard-stick of intelligence.

Granted that thought is a non-material, non-extended function, it is obvious that any direct measurement of intelligence is impossible. One cannot apply an extended yard-stick to a non-extended function or substance. But the non-dimensional thinking process of man is linked up in the concrete with physiological phenomena such as nervous currents, emotional drives, glandular secretions, blood pressure or electrical conductivity which accompany the conscious spiritual processes. For example, under the stress of strong fear or anger, one cannot think. By thinking of a past terrifying experience, on the other hand, one can stimulate oneself into a state of fear. Many other instances could be brought up. But one thing is certain: thought and physiological processes are most intimately connected. Consequently one can measure physiological phenomena and from these measurements infer conclusions which bear indirectly on thought as such.

The following example may illustrate this point. One can measure the quantity of smoke which comes out of a kitchen chimney. From such a measurement one could be certain, say, that the inmates of the house were cook-

ing more food than usual and hence deduce that they had guests and were having a good time. The measure as such would have only told us that there was an intensification in the cooking activity. It tells us nothing about the guests or the good time. These are logical inferences. In the same way measurement of physiological phenomena tell us a lot directly about the physiological processes. Only through inference do they tell us anything about the conscious spiritual processes which accompany the physiological activities of our organism.

Let us take a more concrete example. A certain type of the so-called lie-detector measures directly the human body's electrical conductivity. There are occasions in which the resistance of our bodies to an electrical current varies. Further we know that these variations are intimately connected with the emotional state of a person. On the other hand observation and introspection have taught us that the man who tells a lie is emotionally upset in the moment of telling it. We can therefore test the electrical conductivity of a person on being questioned and measure the changes in the electrical conductivity of his body during his verbal reactions. If on answering certain questions the electrical conductivity varies, the chances are that he is telling a lie. We are not however measuring the lie but its physiological coefficient.

That is one kind of mental measurement. And as has been shown it is not really a mental measurement at all but a physiological one. It can only be called a mental measurement in an analogical or metaphorical sense.

There is another kind of mental measurement which does not touch the function, but the achievement of the func-

tion. Thought is capable of obtaining concrete results in the field of matter. A man can type two or twenty pages; he can memorize six or twelve digits in a given space of time. As long as the achievements are in some way homogeneous it is possible to compute them numerically. But here again it is most important to remember that the word *measure* refers to the objective achievement and not to the function or the substance of the thought. Of course here again one may draw conclusions from these figures. But such conclusions are inferences and have to be examined very carefully.

Besides these tests of achievement which control how much a man may be able to accomplish in a given specific field, there are the so-called general intelligence tests. General intelligence is the inborn, natural potentiality of the mind which is not communicated by the study of any subject matter or acquired by frequenting any university (be it the most famous in the world) but is a gift of nature. It is called general intelligence because it transcends the narrow limits of any particular subject and seems to spread to anything and everything a person may do if he really sets his mind to do it well. There are, of course, exceptions. One finds cases of highly specialized intelligences which seem to be impotent in any field except that of their own specialization. How far that depends on the person's attitude, it is hard to say. A negative attitude to anything renders a person incapable of assimilating it. In general however, a really intelligent man shows his ability in any subject matter he tackles, though his inborn abilities will fit him for certain types of work much more than for others.

As to the nature of this general intelligence it is not a

mere capacity for memorizing facts, however useful that sort of ability may be. Besides the factual knowledge, other factors have to be reckoned with when we are dealing with intelligence. Such factors are the capacity for grasping the meaning of the facts and perceiving their mutual relations, the critical power which enables one to judge their relative importance, the ability to reduce concrete factual data to some sort of synthesis, the quasi-creative urge needed to use the facts possessed as a stepping stone to further knowledge. These are the characteristics of general intelligence and they are worlds removed from sheer memory.

Take the following example. Certain achievement tests are of the stimulus-response (S-R) type. They are called completion tests. A student is asked to fill in a series of blanks in a number of incomplete sentences, of which the following is an example. "The first scientific experiments on — were made by Woodworth and Thorndike in 1901." That is the stimulus. The response is the word "transfer", which has to be filled in. The whole sentence then runs: "The first scientific experiments on 'transfer' were made by Woodworth and Thorndike in 1901." Such a type of completion test controls memory in its simplest and most mechanical function: retention. The true-false tests require a little more deliberation to fill in but they are fundamentally memory tests. Of course the results of such tests can be tabulated beautifully. If 50% of the blanks have been filled in successfully, we have a 50% achievement. But their weakness lies in the fact that they control nothing but memory. Used as memory tests they are perfectly legitimate. Considered as accurate measure-

ments of intelligence, theirs is a spurious accuracy. The "reflex-like" answers tell us nothing about the creative power of the mind, its originality, its command of language, its capacity to adapt itself to an entirely new situation, that is, its capacity for perceiving new relations based on the known facts.

On the other hand, the much maligned essay-system of examination takes in the whole of the mind working in a real situation and controls not only the facts (one cannot write an essay without factual knowledge) but also a man's capacity for controlling his facts, judging them, co-ordinating them and using them as a means for further investigation. In other words it controls the quantity and the quality of the achievement. It is true that qualities cannot be tabulated numerically. What concrete number would express numerically the quality of a sonnet by Shakespeare or of a paragraph from Newton's *Principia*? But qualities are none the less real and their indocility to numerical expression only troubles the minds of those who would like all things expressed in digits. For most men when they are dealing with the quality of a thing, it is enough if they know whether it is very bad, or bad, or mediocre, or good, or very good, or excellent.

It cannot be denied that the essay-type of examination lends itself to careless qualification in the hands of careless teachers. The defect, however, does not lie in the system but in its abuse. On the other hand the completion and true-false tests barely skim the surface of the mind. They are tests of memory and nothing else.

Professor Spearman's lifelong experimental research has shown that the essential, basic quality of general intelligence

is a capacity for perceiving new relations. The best general intelligence tests are those which control this function best. An example will illustrate what is meant by this capacity for seeing new relations. The fundamental problem of chemistry is that of the constitution of matter. What are things made of? Which are the ultimate constituents of things? For a long time the answer was: the atom. Then a great English physicist took it into his head to bombard the atom with radium. He succeeded in disrupting it and now we know that the ultimate elements of matter are the electron and the proton. He thus reached a far deeper level of physical reality than was hitherto known. But it had taken a genius to discover the method by which that was to be done. The atoms and the radium were both there. They were known as facts by everybody who knew anything of chemistry. But one relation had not been perceived: the relation of radium to the atom as a disrupting agent. The perception of that relation which entailed the solution to a most important problem, was in that concrete case the function of general intelligence. It was not a mere association of ideas but a conscious perception of a relation.

Furthermore (and this has not been sufficiently stressed by Spearman but has been shown by Terman in his *Genetic Studies of Genius*) general intelligence presupposes also a certain dynamic attitude, a hunger for knowledge and large inborn curiosity which is one of the most characteristic qualities of genius. Aristotle says the same in the first chapter of his *Metaphysics*. No adequate test, however, has ever been devised for this native appetite of the mind.

It is not possible to measure directly with a yard-stick a mind's capacity to perceive new relations. We are dealing with a spiritual function. The most we can do is to express as accurately as possible its degree of efficiency, deducing it from the quality not the quantity of its achievement. The degree of efficiency is then expressed in numerical symbols. The Terman system of computation uses as symbols a scale ranging from 1-150 or even 200. The digits 1-50 would signify utter inferiority in perceiving new relations; 50-70 means marked inferiority; 100 symbolizes a good average intelligence; 120 reveals a very good intelligence and 150 genius. From 150 onwards the use of the scale is limited to the comparative study of some of the world's greatest geniuses. But the numbers in all these cases are not strictly measuring general intelligence; they are merely gauging its degree of efficiency in perceiving new relations and expressing symbolically by means of numbers what most people express in qualifying adjectives: very inferior, mediocre, good, very good or excellent. The advantage of using the numbers is that we are able to introduce finer shades of meaning. The same result could be obtained by using a series of letters, if the series were large enough. How true it is that we are not really measuring but merely expressing adjectives in numbers, will be seen from the following fact. No psychologist thinks it of the slightest importance whether a boy has an intelligence quotient of 20 or 22. Both numbers signify very good intelligence. That would never be possible if we were dealing with strict measurements.

The chief utility of mental tests is that they enable us to compare different national or racial groups which other-

wise would not be comparable for lack of a common standard of measurement. This sort of comparison is useful but its importance must not be exaggerated. What does it really mean if we say that Dante has an I.Q. of 170? It merely tells us that in a linear series of 200 places Dante occupies the 170th, with Tasso perhaps at the 160th, and Homer at the 180th. It implies further that Dante is very intelligent. But is all that really so very illuminating? Does it tell us anything about the concrete quality of his genius? Does not the reading of just one Canto of the *Divina Commedia* tell us infinitely more about his style, his mental fibre, his richness of experience, his power of plastic representation, than the quantitative expression: Dante has an I.Q. of 170? The same can be said of any other man. If one only knows that a person is very intelligent, one knows relatively little. The quality of his intelligence (practical, philosophical, or artistic) has yet to be reckoned with.

A further advantage of the tests is the relative rapidity with which they can be given. The famous *Army Mental Tests* showed that during the War. They enabled American psychologists to sort out in a short time (although in a rather rough way) the best intelligences of the newly recruited Army. But tests of intelligence are not infallible. In spite of untold efforts it is certain that they test not so much general intelligence as language, familiarity with the data and perhaps other factors. Even today the very best means of investigating a man's intelligence is to see him at work and to examine constantly the quality of his results, placing him now and then in a new situation which shall show up his capacity for adaptation.

It is also most important to remember that intelligence tests do not take in the factor of will. Will power, as everyone knows, plays a most important rôle in life. Unfortunately, reliable tests of will power are not even in their infancy; they have not yet been born.

From an educational standpoint tests of general intelligence have one further utility. They act as controls on the ordinary class-work and on the results of term-examinations. It happens that some students *are* intelligent but do not show it, either because they are unwell, or because they are worried (they may have a father who bullies them or a sick mother), or because they do not like the school or have an emotional complex which repels them from the teacher or from the subject matter. An ordinary examination controls general intelligence by means of knowledge acquired in class. If a bright child for any reason whatever has not assimilated the class matter, he will not show his real power. In these cases the general intelligence test which presupposes no factual basis will reveal his latent intelligence and enable the teacher to give him due care and attention.

(B) EDUCATIONAL SIGNIFICANCE OF MEANING

The senses attain extension, color, taste, smell, hardness, warmth, cold. The imagination is capable of reproducing such sense impressions, even in the absence of the corresponding objects: as when one remembers a winter's day, the colors of the scenery, the bracing cold, etc. But thought reaches a non-extended, non-colored, non-tasteable, non-smelling, non-touchable thing called meaning, which is the unchanging, necessary being of things.

Given this truth, it is obvious that education cannot be what the psychologist thinks who holds that the exclusive function of mind is to stitch up or associate sense impressions. Such a theory must lay a tremendous stress on drill and memory work. For it is by drill and memorizing that bonds or associations are formed.

In a spiritualistic system of education, on the contrary, drill can only be a part-method, especially suitable for undeveloped minds, which are as yet incapable of meaning. But once the full maturity of the intellect is there, facts cease to be sought for their own sake. Facts are sought for the sake of their meaning.

(C) THE "ACTIVITY" PRINCIPLE

If thought is essentially the abstraction of meaning, not a mere apparatus for the manufacture of mental bonds, it is obvious that a spiritualistic education will always be an activity school. Getting at the meaning of things is as personal an operation as digesting food or getting well from an illness. No one can digest or get well or see the meaning of a thing for another. The duty of the teacher, therefore, is to place the student in such a mental situation that he will be able to abstract the meaning for himself: the thought crystallized in a poem; the fundamental idea of a book; the law which governs and is the meaning of a whole series of phenomena.

(D) THE FUNCTIONS OF THE TEACHER

An obvious and most wholesome conclusion of this doctrine is that the teacher is not and simply cannot be the efficient cause of any learning. The efficient causes

of the learning are on the one hand reality, on the other hand, thought. The teacher is and must remain the instrument. It is his job to create the mental situation, and to stimulate the immanent activity of the student. It is the part of the student to abstract personally from that concrete situation the meaning or soul of the thing. The teacher, therefore, is the go-between, the "midwife", the stimulator who quickens the inborn urges of the mind. That is the reason why inspiration is the highest qualification of any teacher. Inspiration is the most active of all stimulants.

(E) APPERCEPTION AND MEANING

If the word "Quatsch" is given to an English-speaking boy, it will mean nothing to him. There is nothing in his mind which corresponds to that word. He cannot correlate it to any known object and consequently he cannot get at its meaning. If he is told, however: "Quatsch is a German word and it expresses the same idea as the English word nonsense", then he can understand. To make him understand, words which he already knows have been employed. The expressions, "German", "word", "expresses", "same", "sense", "English", "nonsense", were already stored in his subconscious mind. They constituted his "apperceptive mass", that is, the sum of his experience, embodied in the mental images, concepts and emotional associations which had been written into the fibre of his mind and recorded in his memory.

It is, consequently, most important for all teachers who desire to impart meaning, that they take into account the "apperception" of their students, the content of their minds,

and link up new ideas with old. The pedagogical principle of apperception is very simple, but it is of the greatest importance. Without it a teacher is simply talking in the air. It is his duty, consequently to prepare the apperception in such a way that, when he brings up a new idea, the student will be able to correlate it to his stock of knowledge.

The obvious deduction from all this is that learning is not "bond-making", "stitching together" or "gluing together" mental images, but actively seeing the relation of one thing to another: actively perceiving the relation of the sound "Quatsch" to the word "nonsense". Seeing "meaning" is nothing more nor less than "seeing relations", as Spearman so well notes in his *Nature of Intelligence*.

(F) INTEGRATION OF MIND THROUGH "MEANING"

Because meaning is always a oneness when the teacher insists on the educational significance of meaning, he is ultimately working for the unification of the human mind and fighting pedantry and muddle-headedness. He is advocating a contemplative attitude, which searches the depths of all things, which is not taken in by bogus numbers or mere heaps of knowledge, but strives to control that which it learns by reducing it to a simple unity. It is only when man unifies that he really understands. It is the man who understands, who dominates and has power over that which he has understood.

It follows that no spiritualistic system of education will ever dump encyclopaedic knowledge into the minds of students. Factual knowledge alone is barren and pedantic. Culture is the habit of reading into facts and of being able to assimilate organically their meaning. Never facts for

the sake of facts, but facts for the sake of their meaning: that is an essential point in liberal education. According to this principle, the whole educational process will have to be built.

Because we know that man stands infinitely higher than matter and animal life, and that he is in a very true sense the king of the universe, raised by Christ himself to the throne of the Father, we want to give our students the meaning of man; man being, in a very real way, a measure of all things. That is why we put them in contact with the greatest men the world has ever seen. And that is the ultimate reason for a classical education. Further, because the world is the reflection of Divine Thought (just as our written words are the reflection of our thoughts), and because the universe is the home of man in this life and he must learn to master it, we also want our students to know the meaning of the universe, in its parts and in its different levels of reality. That is the function of the different sciences. But man needs and rejoices in a comprehensive view of things, which shall give him the total meaning of the totality. That is the aim of philosophy. Finally, because God is the ultimate meaning of all reality, the exemplary, efficient, final, eternally sustaining cause of the cosmos, we also want to teach them religion. And we exhort them to conform their lives to that pattern of law and order whose meaning they have been trained to read in their own hearts in the order and in the beauty of God's work. Meaning seen, meaning loved, meaning lived: that is the whole of education. And one ventures to hope that minds so trained will not be unworthy instruments of divine grace; and that they will be able to assimilate and

interpret to the world the meaning of God's message to humanity.

For from that snowy little circle, called a daisy, to that immense rotating wheel of flaming stuff which we call a nebula, all things proclaim the glories of the Lord. And what is the duty of man, the great reader, but to broadcast into infinite space the message of God's glory?

*Slight as thou art, thou art enough to hide
Like all created things, secrets from me,
And stand a barrier to eternity.
And I, how can I praise thee well and wide,*

*From where I dwell upon the hither side?
Thou little veil for so great mystery,
When shall I penetrate all things and thee,
And then look back? For this I must abide,*

*Till thou shalt grow and fold and be unfurled
Literally between me and the world.
Then I shall drink from in beneath a spring,*

*And from a poet's side shall read his book.
O daisy mine, what will it be to look
From God's side even of such a simple thing? ⁶*

⁶ Alice Meynell: "To a Daisy", *Poems*, New York, 1923, p. 29.

II. CREATIVE POWER

"Love is poor, and anything but tender and fair, as the many imagine him. And he is hard featured and squalid, and has no shoes, nor a house to dwell in, on the bare earth exposed he lies under the open heaven, in the streets, or at the doors of houses, taking his rest; and like his mother (poverty) he is always in distress. Like his father too (wealth) whom he also partly resembles, he is always plotting against the fair and good; he is bold, enterprising, strong, a hunter of men, always at some intrigue or other, keen in the pursuit of wisdom and never wanting in resources; a philosopher at all times, terrible as an enchanter, sorcerer, sophist; for he is neither mortal nor immortal . . . never in want and never in wealth, in a mean between ignorance and knowledge."—Plato, *The Symposium*: Socrates' speech.

"There enter into imaginative creation three factors which reciprocally interplay: The Well and the Vision and the Will. Without the Vision the chaos of elements remains a chaos, and the Form sleeps forever in the vast chamber of unborn designs. Yet in that chaos only could creative vision ever see this Form. Nor without the co-operant Will, obedient to the vision, may the pattern perceived in the huddle attain objective reality. Yet manifold though the ways of the creative faculty may be, the upshot is one: from the empire of chaos a new tract of cosmos has been retrieved; a nebula has been compacted—it may be—into a star."—J. L. Lowes, *The Road to Xanadu*.

(1) THE NATURE OF CREATIVE POWER

(A) THE QUALITY OF CREATIVE ACTION

THE preceding chapter was an analysis of man's fundamental urge: thought. It was seen that thought cannot be

reduced to matter or animal instinct, there being an unbridgeable chasm between thought and matter and between instinct and thought. To put it very briefly, thought liberates man from an exclusive adherence to sex and food (which is the world of animals) and plunges him into the world of meaning and of general, necessary ideas, which is the domain of science.

In the present chapter we shall be dealing with another aspect of man's rational nature. We shall see man returning from the world of ideas to the world of matter. He returns, not as a slave, but as a master, to control and mould and stamp material things with the seal of his own spiritual unity. It is indeed the fairest of all sights to see man the artist, the giver, the moulder and remoulder of matter, imparting the breath of his creative spirit into the raw stuffs of nature. At his touch, coarse lumps of marble are transfigured into the dreams of Phidias; heaps of blotchy pigments mellow and glow upon the canvas of Velasquez or Ribera; shrill, conflicting sounds are harmonized into the architectonic glory of Bach's fugues; words are beaten into rhythm and transformed into the immortal poetry of Dante or of Goethe.

The analysis of thought showed us man the scientist abstracting meaning from the world around him. The study of creative action will show us man the artist imparting a higher sort of meaning to the world of matter. In the sphere of science man, so to say, "reads". In that of art he "writes". The scientist takes. The artist gives and transfigures.

The psychological structure of man's creative function will be analyzed in itself; then in its relation to the dif-

ferent elements in man's psychological make-up; his biological-hereditary substratum, his emotions and instincts, his subconsciousness, his imagination and intelligence. It will be seen that man's artistic activity, though stimulated and influenced by all these functions, cannot be reduced to instinct, to any form of mental imagery or to mere association; that there is in man a generalizing function, spiritual in nature and capable of conquering and remoulding the material universe into higher forms of unity, which we call beauty. The utter unselfishness of this creative urge, moreover, will prove that in its very essence it is a "giving" tendency. In other words, we are to be concerned with the psychology of the noblest of human impulses: creative power.

(B) THE EDUCATIONAL SIGNIFICANCE OF AESTHETICS

It will seem strange to some educators, perhaps, that a whole chapter should be dedicated to the psychological analysis of creative power and to the treatment of such problems as inspiration, aesthetic contemplation and the nature of beauty. It is even stranger that existing educational books deal so sparingly with these matters; matters far more important than working curves or fatigue curves. Art has been, and is, the great educational medium. Historically speaking, this is so obvious that there is hardly any need to discuss it. The popular education of Greece was bound up with the work of a poet, Homer, and of three great tragedians.¹ The Middle Ages acquired much of their culture by carving out ancient history and con-

¹ W. Jäger, *Paideia: die Formung des griechischen Menschen*. Berlin, 1935.

temporary life in the stones and wood-work of the great cathedrals. In the sixteenth and seventeenth centuries, Spain was catechized by the symbolic drama of Lope de Vega, Calderón and Tirso de Molina. Jesuit missionaries in Paraguay found music a most powerful asset for the civilization of the Indians. In our own times, the "movies", which are simply a popular (though as yet very primitive) form of dramatics, exert a most powerful educational influence. Last but not least, it should be remembered that, in all countries where culture is held in honor, countless boys and girls of the highest intellectual standards give up many years of their lives to the study of literature. It seems, therefore, that from an educational standpoint the problems of art are of the greatest importance. No real educator can possibly "insulate" himself from such studies as these.

Further, the psychology of art offers unique opportunities for observation to those who are not contented with the partial study of mental phenomena, but desire, as far as possible, to control the totality. It is in art that man realizes the most perfect integration of his functions. In science it is mainly the intellectual, and in morality principally the conative factors, which are at work. But in art, as will be seen, the whole of man functions as a unity; intellect and will, imagination and emotion nourished by the senses, the conscious and the subconscious elements of mind, all have a very important part to play. Here, then, as nowhere else, can we observe the tremendous complexity of human action; its multiplicity and unity, its harmony.

Art, besides, is intimately linked up with inspiration, and

all men need some sort of inspiration. The teacher, if he is worth his name, is above all things an inspirer. The student never works so well as when he is inspired, that is, urged from within to some sort of creative action (activity principle). It is therefore most necessary that teachers should know accurately and in great detail the whole complicated process of inspiration.

Finally, there is nothing so refining as beauty. With beauty, life is pleasant and joyful. Without it, life becomes hard and bleak. Think of those suburban districts in industrial cities where men have had no concern for beauty, but only for utility; where appalling tenement houses straggle amid cancerous growths of scrap-iron and rubbish, surrounded by scurvy patches of messy grass. Compare that horror with those simple residential districts where each bungalow (humble and poor as it may be) is surrounded by its fresh green lawns and flowers.

This contrast, however, is not only noticeable between residential districts of a town; it is quite as noticeable between persons. There are men who give no finish to their actions or to their thoughts; who are not afraid of jarring, or hurting or being brutal. There is no touch of grace, gentleness or beauty about their lives. And if endowed with a powerful mind, their intelligence only adds to their brutality the doubtful privilege of being more offensive. It is a fact, moreover, that the emotional life of such men, finding no outlet (derivative) in the contemplation of beauty, often works itself out in over-eating, over-drinking, fighting and other excesses. It is a far cry from such uncouth natures to the ideal gentleman, of whom Newman wrote that he was the man who never hurt another.

It is, therefore, of the utmost importance that beauty should play a large part in the education of children and that educational institutions should use this most powerful medium to make truth and goodness lovable. Is not the strange power, which such great universities as Oxford or Cambridge, Heidelberg, Bonn or Princeton exert on their students, due, in part at least, to the charm and refinement of their buildings, their life and their culture? Not that aesthetics alone will ever make a man good. There have been plenty of most selfish and even cruel aesthetes. And, if exaggerated (as Plato so well notes), the cult of beauty, with its implicit flight from the real, can enervate a character. But, taken in due proportion, beauty is the very flower of good breeding and one of the most powerful instruments of education, as the history of nations has shown again and again.

(c) THE GENERAL TENDENCY OF MAN'S CREATIVE ACTION

All this notwithstanding and abstracting from the content of art (the good, the true, the useful) it still remains true that beauty as such is certainly the most useless of all useless things. This may sound like a paradox, but it is really an obvious, though much forgotten, truth. The proof is very easy. Take away the beauty from any useful thing whatever, and it keeps on being as useful as it was before. Churches need not be Romanesque or Gothic or Baroque in order to harbor us and protect us against sun, rain and noise. They need only to be shelters. As for their form, it can be as simple as that of a barn. It is the same with furniture. Take away from it all proportion, grace and nobility of line, it will still be useful: chairs

and beds and tables will still continue to support that which they are supposed to support. And the same could be said of cities. Nothing whatever would happen to a community if its parks and gardens were not trimmed into beautiful patterns, but were allowed to grow wild. Trimmed or not, shrubs and trees would still go on refreshing the air and pumping oxygen into the atmosphere at night.

As for pictures and statues and such things, whose very nature it is to beautify: if they were all to disappear from the world, houses would still go on sheltering, trains running, elevators ascending and restaurants cooking meals. Nor can it be claimed that beauty is at least useful for the intellect and the will. That could be said of truth and goodness. For possession of the truth through knowledge is equivalent to power; as Bacon knew so well and modern scientists, of the pragmatist school, are never tired of preaching. Think of the power which the knowledge of electricity has given to man. And in the sphere of the will, it is goodness which is useful and is loved because it is convenient for us and makes us capable of attaining our human end. But as for beauty as such, even in the intellectual and moral order it is completely useless. When the truth and goodness of a thing have been considered, we have done with utility as such. Even for the intellect and will beauty is a perfectly useless thing.

Yet there are and always have been men who, even at the cost of heroic sacrifices, have dedicated their whole life to this utterly useless thing. There is no better example than that of the late Vincent van Gogh, whose works have so captivated our times: sunflowers saturated with an

almost uncanny glow of dazzling light; kindly, wistful, ugly faces; interiors flaming with colors of strong, sharp, almost three-dimensional relief.² Son of a well-to-do family, Vincent van Gogh gave up a comfortable living in order to create useless beauty. Of course he sold his paintings and even got money for them. His entire production brought him the sum of \$129 in the whole course of his miserable existence. A single picture of his was sold, after his death, for \$85,000. It is clear then that Vincent van Gogh did not paint for money.

Van Gogh's, moreover, is not an isolated case. Chopin preferred to go hungry, risking his poor health, rather than spend the little energy he had in lucrative concert work. Whatever energy he had, however, he employed in composition, which was not lucrative, made him very uncomfortable and exhausted his consumptive body.³ Beethoven renounced marriage in order to consecrate himself to his music. His is the admirable saying that the creative artist "must hew out of himself".⁴ As for his life, it was one of poverty and intense solitude, of great moral anguish and tremendous, racking mental effort, all for the sake of that perfectly useless thing: beauty.

There is no need to multiply such proofs or back up the underlying conclusions with the testimony of such keen, introspective minds as St. Thomas, Kant, Schelling or

² Irving Stone: *Lust for Life*, New York, 1934, *passim*. See also Julius Meier-Graefe: *Vincent van Gogh*, New York, 1933.

³ W. Murdoch: *Chopin, His Life*, New York, 1935, *passim*.

⁴ W. J. Turner: *Beethoven: The Search for Reality*, New York, 1927, p. 134, pp. 72 ff. See also Beethoven's own diary. Ludwig von Beethoven: *Carnets Intimes*, Paris, 1936.

Hegel. There is no need to draw upon authority or philosophical principles, but upon hard facts and experience. And this experience and these facts all point to the following conclusions: first of all, that beauty, in itself and considered as such, is essentially useless; secondly that, precisely because it is useless and can never be used as a means for anything else, beauty is loved exclusively for its own sake and is, therefore, in a very real sense, an absolute, an imitation of God's own absolute value; thirdly, and consequently, that the human urge after beauty, which we call creative action, is not a selfish urge, but essentially selfless.⁵

These are significant conclusions, for they show up one important difference between instinct and creative power. The nature of instinct is "to take"; that of art is "to give". Instinct exists for the preservation of the individual or the species. Think of the functions of hunger and sex, of rage and fear. Art does nothing for the preservation of the individual or the species. The work of art is a gift, made for the sake of the gift, because it is beautiful and worthy of existence. Creative action, then, is the very opposite of "bartering", "exchanging", "earning", "winning", "getting something out of", "go getting". It is, on the contrary, a "communication", an "endowing", a free, spontaneous and absolutely disinterested "giving".

Let us now look into the internal structure of this act. We shall see that it has at least two characteristic notes: it is intuitive and it is autonomous.

⁵In his masterly *Aesthetic Attitude*, Prof. Langfeld stresses implicitly the selfless quality of creative action when he analyses the "detachment" of the aesthetic emotion. See pp. 60-64.

(D) THE INTUITIVE CHARACTER OF CREATIVE ACTION

When we make the statement that man's creative act is intuitive, it is not made a priori. It is deduced from the introspective experience of great artists, who have taken the trouble to record it. Describing how he composed *Lohengrin*, Wagner writes in his autobiography how he retired into the mountains of Bohemia for a rest and roamed about alone on the hills, reading and thinking. One day, he writes, Lohengrin "stood suddenly before me, completed in every detail of its dramatic construction."⁶ Beethoven told his friend Schölser: "You will ask me how my ideas come. I cannot tell you with certainty. They come uncalled for—directly, indirectly. I can grasp them with my hands in the open air, in the woods, when walking in the silence of the night, in the early morning excited by moods which the poet puts into words, and I into tones, which roar around me until I see them at last in notes before me".⁷ Note the expressions: "grasp", "roar", "see". They all imply immediate knowledge, that is: intuition.

You will observe, however, that this intuition refers to the conception of the work, not to its realization which is long and painful; longer and more painful, the vaster and greater the work. It does not dispense the artist from due preparation. In fact there is always a period of what one might call "gestation" or "travail". But one thing is

⁶ Richard Wagner: *My Life*. New York, 1924, p. 365.

⁷ Turner, *op. cit.*, p. 194. It is very important to note that no sort of innatism is being implied here. The artist's intuition is based on the raw stuff derived through sense and thought from experience and stored up in the subconsciousness. See paragraph on subconsciousness.

certain. The artistic conception as such is not a rational, logical deductive process; not a stitching together of mechanical bonds, but a seizure of the totality by a totality, which controls every part in itself and every part in relation to the whole. It is not then a piece-meal, atomized activity; not a heaping or dumping or bundling together of impressions, but the communication of a simple comprehensive form, the same in each part of the object and the same in the totality as a whole. The analysis of certain works of art in a later part of this chapter will make this important point still clearer.

(E) AUTONOMY OF MAN'S CREATIVE ACT

Man's creative action is also autonomous, but not in the sense that it is not subject to the natural law. Like any other human act, it has a place and a meaning within the moral order. It is autonomous in the sense that it is not built with the help of precepts or rules, but, on the contrary, it is the source from which rules and precepts are drawn. Long before Aristotle had written his *Poetics* the Greek tragedians had written the masterpieces from which Aristotle derived his rules. This is the best proof of the autonomy of really great art. Many centuries later, Beethoven wrote in his diary: "The world is a king and would like to be flattered, if it is to show favor. But true art is self-willed and cannot take the forms of any flattery." In fact, great artists have generally started off by starving, precisely because they would not flatter fashion or fad or natural conservative tendencies. Wagner's *Tannhäuser* was hissed on its first performance. Van Gogh literally was driven mad by the misery of his life. His art would

not sell because of its unconventional nature but he simply would not change the nature of his art and preferred starving to flattering public opinion. Bruckner's divine music was for a long while boycotted in Vienna because he would not pander to the taste of his times. True art does not take its patterns from, but imposes its patterns on, the public, crushing, if need be, the opposition and prejudice of contemporary criticism. That has happened so often, it is hardly worth while to insist on it. But it is a question of integrity and not of sheer stubbornness. Loyalty to a personal inspiration is at the root of this uncompromising attitude.

(F) CREATIVE ACTIVITY BORN OF CONTACT WITH REALITY

Experience, then, not a priori concepts, tells us that man's creative art is essentially unselfish in the quality of its urge, that it is intuitive, autonomous, "self-willed", as Beethoven says. But what about its origin? How is it born? What drives it into action? Just one thing: vital contact with reality. This is a simple and most obvious truth, which would be a platitude if it were not so miserably ignored by so many lesser spirits; although it has always been known by the really great artists. Mediocre minds take refuge in styles, stunts, tricks, cults of originality, desires to make a splash and other absurd flights from the real. But the true creative genius (like Antheus, son of the earth, who could win no fight if he were lifted from his mother's lap, but regained his strength on retouching the lap of his mother earth), the true artist finds his strength in a vital contact with reality; the reality of nature, or the reality of history or the reality of

human personality or, on the highest plane, in the reality of God.

Wagner found his inspiration for *Lohengrin* reading the historical poems of Wolfram von Eschenbach⁸; for the bird-music in *Siegfried*, hearing real birds sing real songs⁹; and for the *Meistersinger*, reading Gervinus' *History of German Literature*.¹⁰ Beethoven tells us that he sought creative strength for his church music, "looking through monastic church chorals".¹¹ Later in life, great moral ideals, such as heroism, drawn from the lives of heroic men, were the source of his greatest inspiration. Think of the "Hymn to Joy", which is the climax of the *Ninth Symphony*. Under the stress of fear and anguish, caused by a storm in which his friends were in peril, Chopin wrote his *Prelude No. 15 in D Flat*.¹² Orozco (the only one amongst the muralists of Mexican school who has attained greatness), did not study in Paris like most of his colleagues, who flirted with cubism and languidly imitated modernistic fashions.¹³ Orozco stayed at home and watched the terrible tragedy of the Mexican revolution. His reaction to those scenes of blood, he has splashed in fearful forms and sombre colors on the walls of Pomona College. Not that he was not influenced by modernist tendencies. But for him, style was never an end in itself. It was merely a means. The end was the revelation (in terms of a higher and more

⁸ Wagner, *op. cit.*, p. 365.

⁹ *Ibid.*, p. 666.

¹⁰ *Ibid.*, p. 365.

¹¹ Turner, *op. cit.*, p. 180.

¹² Murdoch, *op. cit.*, p. 248.

¹³ *Creative Art*, September 1931 (Vol. 9, No. 3) p. 199 ff. A complete collection of Orozco's works has been published by the Delphic Studios, N.Y.

luminous unity) of that reality whose contact had fecundated him. Mr. Chesterton drew his most beautiful pages from the contemplation of great historical perspectives. On the stage of history which he fixed with large, wondering, open eyes, he saw one thing. He saw that the church of Christ is the weakest and the strongest of all things. This paradox startled him and the wonder of this tremendous historical reality has filled his heart with laughter and his lips with immortal song.¹⁴

This induction again is not complete. It would not be difficult to prolong it indefinitely, but the outcome would always be the same. Man's creative act is kindled into action, not by precept, not by rule, not by artistic fashion, not by sheer drudgery of prolonged practice (although these things may help to discipline and color the quality of man's aesthetic action), but by vital contact with reality. One might say: just by opening one's eyes and seeing. So did Ruskin once write most beautifully: "The greatest thing a human soul ever does in this world is to see something, and tell what it saw in a plain way. Hundreds of people can talk for one who can think, but thousands can think for one who can see. To see clearly is poetry, prophecy and religion—all in one".

(G) MAN'S CREATIVE ACTION AS A CONDENSATION OF EXPERIENCE

If man's urge to give is kindled by reality, why are not all men urged on to create? One might as well ask: if science as a habit is merely the ability to read matter, or

¹⁴ G. K. Chesterton: *The Ballad of the White Horse*, New York, 1924.

nature, or man, and to abstract their meaning, why are not all men scientists? Science presupposes a definite inborn power. So does creative action. Artistic creative power is a capacity for condensing discrete, multiple, and varied experience into some sort of splendid unity. These words may sound difficult. As a matter of fact they contain a very simple obvious truth.

An example will illustrate what is meant by this condensation of experience. *Hamlet* will serve the purpose, but any other play, in fact any work of art, would do equally well. Shakespeare must have known something about the history of Denmark. He must have had historical experience. As far as we know, he took his facts from the *Historica Danica* of Saxo Grammaticus, or from the *Histoires Tragiques* of François de Belleforest. The writer of *Hamlet*, moreover, must have had a profound personal experience of life. In himself or in others or in both, he must have observed the utter incapacity for action which is characteristic of the brilliant, neurotic doubter. While others do, the doubter day-dreams. He does not control action, he just thinks, thinks and then thinks again. He does not go into action but is driven into it by circumstances, in ways he had not foreseen; just as Hamlet was. A man may be as brilliant as you please. But if the strong, narrow groove of a resolute, practical judgment does not canalize his mental energy, it oozes out and is spilt and wasted. All this is experience, derived from shrewd observation or acute introspection of one's own fluctuating resolutions, and from all this manifold, almost infinitely varied experience, historical, social and personal, the stuff was gathered from which *Hamlet* was moulded. Now notice

how all this heterogeneous mass of historical and personal observations is condensed into the splendid unity of just one human trait.

There are many characters in *Hamlet*, but only one hero. All the other personages are but a pedestal for his figure. There are also many scenes in *Hamlet*, but only one the purpose of all those scenes: to show up all the neurotic moods and doubting attitudes of the hero. There are a thousand little traits in the character of Hamlet himself, but one fundamental feature: his doubts as the hero. Thus hundreds of thousands of sense impressions, memories, experiences, historical facts are all condensed into just one fundamental unity: Hamlet, the doubting hero. As innumerable roses go to make up one little drop of essence and as millions and millions of cells make up the tissue of a jasmine (and in spite of the millions of cells, the jasmine remains just one beautiful fragrant "oneness"), in exactly the same way the innumerable manifold experiences which make up *Hamlet* are not a heap or a jumble, but are condensed into an organic unity: the immortal character of Hamlet the doubter. This is a condensation of discrete, multiple experience into some sort of splendorous unity. It is the last and most characteristic feature of man's creative act. That is how it reacts on that reality (which acted on it as an inspiration), by moulding it into the higher type of unity (splendor ordinis) which is called beauty.

This process of condensation has been admirably described by Beethoven. He once told his friend Schlosser: "I carry my ideas about me for a long time before I write them down. My memory is so tenacious that I am certain

never to forget a theme which I have once worked out, not even after years. I alter a great deal, throw away and begin again frequently, until I am contented. Then begins the general working in my head in every direction, in height, breadth and depth; and because what I want is known to me, so the underlying idea never leaves me but grows and mounts. I hear and see the picture in its full dimensions stand before me like a cast, and there only remains the work of writing it down".¹⁵

(H) STRUCTURE OF MAN'S CREATIVE ACT¹⁶

So far the general tendency, the structure and dynamism of man's creative, beauty-giving action have been analyzed. Basing conclusions on empirical evidence, draw-

¹⁵ Turner, *op. cit.*, p. 193.

¹⁶ See Dr. Catherine Patrick's interesting research work "Creative Thought in Poets", New York, 1935. (*Archives of Psychology*, No. 178.)

Although the conclusions of this chapter are based on the analysis of diaries, letters and biographies of great artists, they agree on fundamental issues with Dr. Patrick's experimental findings. Testing the introspective experience of 55 poets and using a control group of 58 non-poets, she found that the creative process can be reduced to the following four stages: preparation, incubation, illumination and verification. Preparation is "the period when associations are shifting rapidly and the subject is receiving ideas". This is the process which we have called "contact with reality". Incubation is defined: "the spontaneous recurrence from time to time of a mood or idea with more or less modification. It may be indefinitely related to the ultimate goal." This we have called the condensation of experience; it is the growth of a mood or an idea; the drawing up into a "oneness" of an almost infinite quantity of data. Illumination is described thus: "illumination occurs when the mood or idea which has been incubating becomes definitely related to a specific goal. In the case of the poet, the essential structure of the poem is composed all at once at this time. An emotional reaction is usually present and part of the poem seems to come automatically." This illumination is what we call intuition. The verification is a process of revision, criticism and elaboration.

In *America* for September 14, 1935, Francis X. Talbot, S.J., the editor of that review, published introspective data given by some well-known American poets on "how they write their poems". Sister

ing from the introspection and the works of creative geniuses, it has been shown that man's creative action is utterly unselfish in the quality of its tendency. It is essentially intuitive; it is irrational in the sense that it cannot explain itself and does not want to explain anything; it is contemplative and irreducible to metaphysical or mathematical or any other kind of rational formula. It is in its own sphere autonomous, perfectly and absolutely autonomous: not in the sense that it is not linked up with the general order of this world; not that it has not a social function and is not subject to the moral law just as any other human action; but it is autonomous in the sense that, in its creative moment, it is a law unto itself. It is not the subject of precepts, but the source of them all. As to its origin, it is born of a vital contact with reality: be this reality natural, historical, human or divine. Finally, it is strong,

Madeleva testifies to the intuitive character of her inspiration and to the growth of the idea. Leonard Feeney, S.J. and Benjamin Musser both describe in detail the gradual growth of an original "germ", seen as a "oneness" and integrated little by little in more and more concrete data.

No one has described the whole process of inspiration better than John Livingston Lowes in his *The Road to Xanadu* (Boston, 1930). Professor Lowes writes: "For the Road to Xanadu, as we have traced it, is the road of the human spirit, and the imagination voyaging through chaos and reducing it to clarity and order is the symbol of all the quests which lend glory to our dust. And the goal of the shaping spirit which hovers in the poet's brain is the clarity and order of pure beauty. Nothing is alien to its transforming touch! 'Far or forgot to it is near; shadow and sunlight are the same'; things phantastic as the dancing of spectres on skeleton barks, and ugly as the slimy spawn of rotting seas and strange as a star astray within the moon's bright tip, blend in its vision into patterns of new created beauty 'herrlich, wie im ersten Tag.' Yet the pieces that compose the pattern are not new. In the world of the shaping spirit, save for its patterns, there is nothing new that was not old. For the work of the creators is the mastery and the transmutation and reordering into shapes of beauty of the given universe within us and without us. . . ." (p. 433)

as only the spirit can be strong. It is strong in that it compenetrates matter, and unifies it and spiritualizes it: not indeed by transforming it into the ash-gray stuff of metaphysical concept: that would be abstraction; but by enriching it with an infinite variety of subjective and objective experience, condensed into just one simple, unassuming, self-evident, harmonic unity: beauty. Bergson has brilliantly remarked that the very same thing, which in the realm of matter is constituted by 510 trillions of ether vibrations, is in the human eye just one simple perception of yellow light: the yellow light of sodium. The almost infinite complexity of extended moving matter has been condensed by the eye into the simplicity of perception. It is the same with creative action. Man's creative activity is the great unifier. How often have the vast complexity of a human life and the multiple variety of its failures and aspirations been condensed into the lovely almost childish simplicity of a few lines of poetry:

*I have desired to go
where springs not fail,
to fields where flies no sharp and sided hail
and lilies blow
and I have asked to be
where no storms come,
where the green swell is in the havens dumb
and out of the swing of the sea.*

—Gerard Manley Hopkins

Or again, from the same author:

*Thee God I come from, to Thee go,
All day long I like fountain flow,
from thy hand out, swayed about
mote-like in thy mighty glow.*

(2) PSYCHOLOGICAL ELEMENTS OF CREATIVE POWER

If that, then, is the nature of man's creative activity, which are its psychological sources? They are as varied and as complex as man's nature: heredity, the animal instincts rooted in man's biological substratum, sub-consciousness and imagination. All these must be considered. It will be seen, however, that the very nature of the creative action postulates the existence of a spiritual urge.

(A) HEREDITY

The first question is: how far is man's creative action dependent on his heredity? The studies of the heredity of genius which have been carried out in Germany are by no means complete;¹⁷ nor their conclusions apodictic. A brief summary of their results is pertinent and extremely suggestive. John Sebastian Bach, one of the greatest musical geniuses, belonged to a family of musicians, rooted in the social medium of the music and handicraft guilds where inbreeding was a rigid tradition. Goethe, Hölderlin, Mörike, Uhland and Schelling belonged to the class of Protestant clergymen and state officials where inbreeding was also a regular practice. Here in the United States, Woods, on looking up the genealogy of 3500 eminent Americans, discovered that, whereas the probability of any of these eminent Americans being related to any ordinary American citizen was only 1 in 500, the probability of his being related to any other member of the analyzed group

¹⁷ E. Kretschmer: *Geniale Menschen*, Berlin. See also his *Körperbau und Charakter*.

was one to five. One might express it shortly, though inaccurately, by saying that eminent Americans are 100 times more related amongst themselves than to the general class of citizens. Schelling, Hölderlin, Uhland and Mörike are descendants of the Burhard-Bardili family, and from these men genealogical lines can be traced to Hauff, Koerner, Hegel, Mozart. Goethe himself is a descendant of the family of Lucas Cranach, the great painter of the German reformation. Galton's studies of the 1000 most famous men in England also illustrates this point. One hundred illustrious men had 31 eminent grandfathers, 41 eminent fathers, 41 eminent sons, 17 eminent grandchildren.

This does not prove that artistically endowed parents will necessarily have artistically endowed children. Such a claim, so often made by militant eugenisists with an axe to grind, is not borne out by facts, and has been refuted by biologists such as Jennings and Raymond Pearl. But it does show that a man's heredity has an influence on the quality of his higher functions. The recurrence of certain types of behavior within certain highly selected social groups, is not only due to the surroundings, but also to inherited dispositions. If it is true that any individual as such within a species has the power (absolutely speaking) of reproducing any of the possible variants within the whole species, selection and inbreeding within the species does make it more probable that the offspring will have the same characteristics as their progenitors. It is not a matter of certainty, but of greater probability.¹⁸

¹⁸ H. S. Jennings: *The Biological Basis of Human Nature*, New York, 1930.

This explains another fact: the biological inferiority which sometimes characterizes inspired men: instability, hypersensitiveness, and a considerable liability to psychoses, neuroses and psychopathic complaints. The price of inbreeding is paid, not necessarily, but very often, with a certain biological decadence. Rousseau, Nietzsche, Galton, Newton, Robert Mayer, Blücher, Tasso, Kleist, Hölderlin, C. F. Meyer, Lenau, Maupassant, Dostoieffsky, Strindberg, Rether, Van Gogh, Robert Schumann and Hugo Wolf died insane. Michael Angelo, Byron, Grillparzer, Bismarck and Goethe, among others, were inclined to strange moods.

These facts led a brutal materialist like Lombroso to the perfectly ridiculous conclusion that genius and inspiration were synonymous with madness. As if any creative work had ever come out of a lunatic asylum. The mental instability of certain geniuses can easily be explained: first of all by the fact that their genius was very often the result of inbreeding, which is sometimes the cause of constitutional decadence; secondly by the obvious explanation that genius is a very onerous privilege. It is exasperating for a genius to have to explain one hundred times to the ordinary person what he sees in a flash; to have to prove what seems to him obvious; to find so little comprehension for points of view which are not to be understood until seventy or eighty years after he has passed away; to find himself isolated, misunderstood, underrated. As Hegel so pithily puts it: a hero is never a hero to his valet, not because the hero is not a hero but because the valet *is* a valet. And the fact that the valet *is* a valet is very often most trying for the hero.

We have seen, then, that the degree and quality of creative action is intimately connected with the hereditary mass a man may have received from his progenitors. This is not because this creative habit as such is hereditary, but because the biological substratum, which has such a great influence on creative action, is contained in the "genes" a man may inherit from his forefathers. We shall now see that instinct has also an influence on the creative activity of an artist. Nietzsche's phrase, a man's instinct "reaches right up to the uttermost peaks of his spirit", is not only true, but extremely deep. Let us examine this very important point.

(B) INSTINCT

That men in love write poetry is a commonplace. But then, why do men fall in love? Partly at least because the maturing of their instincts demands it. Before the age of puberty, youths do not fall in love. It is partly instinct which drives young men to fall in love. And it is very often his falling in love which starts a youth on the road of creative artistic production. When that youth is a genius and his name is Dante, that instinctive drive and that falling in love can be of the greatest importance to the whole of mankind. Professor Kretschmer's study on the periodicity of Goethe's inspiration¹⁹ will illustrate the point still better.

It is well known, from a study of Goethe's portraits from his writings and from the stories and descriptions which his friends have left us, that his temperament was, what we would call "zyklold", or circular. According to Kretsch-

¹⁹ Kretschmer, *op. cit.*

mer's theory of constitutional types, temperaments can be roughly divided into three groups, which correspond to three kinds of bodily structures: the fat, the lean and the athletic. Types, like all means of classification, are always abstract categories. In real life we never find the purely lean type (called the asthenic) or the purely fat type (called the pyknic) or the purely muscular type. But there is a sufficient amount of truth in the theory (the only theory of temperament which has any scientific basis) to warrant our using it. According to this theory the circular or fat type is characterized by a certain natural instability, a fluctuation between activity and passivity, exaltation and depression. These fluctuations are probably due to periodical glandular secretions.

In Goethe's life these temperamental fluctuations do take place and periods of buoyant activity alternate with periods of inactivity, the spans of buoyancy being accompanied by literary production and fits of enamourment. In 1767 takes place the first circular oscillation of the 18 year old Goethe. It is his period of puberty and he falls in love with Kätchen von Schönkopf. Naturally he writes poetry. In 1773, we have another wave of mania. This time he's in a tragic mood; he talks of suicide and writes his gloomiest book, *Werther*. Concomitantly he falls in love with Frau von Stein. Follows a period of calm. In 1787, Goethe, who is now a solemn state official, suddenly scampers off to Italy, travels round and writes most beautiful verses. He comes back to Weimar and marries a flower girl. Again a pause. In the year 1788-9 Goethe is in Weimar. Schiller sends him his poetry and makes friendly advances. Goethe refuses to see him. In 1794, five years later, he suddenly

changes his mind, receives Schiller and admits him to his friendship. He then writes *Hermann und Dorothea*. So much for Goethe's early life. But it is clear that in this first section of Goethe's life, the urge to write occurs periodically, at intervals of from five to seven years; and this literary craving is invariably accompanied by emotional phenomena of an instinctive type, such as love-making or tender friendships.

If we now look into Goethe's middle age we shall see that it falls into four well-defined periods of activity, separated each by intervals of from six to seven years of quiet life: 1801-1808; 1814-15; 1822-23; 1830-31. Each one of these active periods is again characterized by literary production and fits of enamourment. When Goethe starts writing verse, we can be sure that he will soon fall in love. So, for example, in 1814. On July 21 he writes the first song of a collection which is to be called the *Persian Divan*. By the end of August, 30 poems are ready. In May 1815 the hundredth poem is finished and Goethe promptly falls in love with the 19 year old Ulrika von Levetzov. He suddenly becomes gay and gallant, music moves him to tears, and he has consoling dreams. The period of mania then subsides and reappears in 1831, which is again an active year. He then finishes the second part of *Faust*.²⁰

The case of Goethe, then, presents us with an excellent

²⁰ Dr. Alexis Carrel writes in his *Man, the Unknown* (N.Y., 1935), "The testicle, more than any other gland, exerts a profound influence upon the strength and quality of the mind. In general, great poets, artists and saints, as well as conquerors are strongly sexed. The removal of the genital gland, even in adult individuals, produces some modification of the mental state. After the extirpation of the ovaries, women become apathetic and lose part of their intellectual activity or moral sense. . . . Inspiration seems to depend on a certain condition of the

example of the influence which a man's instinctive life has on his poetic inspiration. The periodical artistic inspiration is not essentially constituted by periodical gland secretions. But periodical gland secretions stimulate the instincts. The instincts being the props and, in a sense, the accelerators of the will, they set the infinitely complicated organization of man's mind in motion. Thus, a man's creative activity, which is deeply rooted in the hereditary mass of the artist, is also intimately dependent on his constitutional status. Glands have something to say even in the sublimest inspirations of an artist.

(c) SUB-CONSCIOUSNESS²¹

The effects of heredity and instinct on creative activity have so far been considered. What influence has the sub-conscious mind on a man's creative function? Subconsciousness is the raw stuff of artistic creative work. The association psychology of the last century (that of Herbart, for example) had a very superficial view of man when it assumed that a man could be reduced to his "actual thinking process". It has been Freud's achievement in the field of psychology (the so called value-school had realized the same in philosophy) that he has made it perfectly clear how strongly and permanently our whole past life lives in

sexual glands. Love stimulates mind when it does not attain its object. If Beatrice had been the mistress of Dante, there would perhaps be no *Divine Comedy*. . . . It is well known that sexual excesses impede intellectual activity. In order to reach its full power, intelligence seems to require both the presence of well-developed sexual glands and the temporary repression of the sexual appetite" (p. 143)

²¹ Roughly speaking the apperceptive mass of a person is an integral part of his subconsciousness. See pp. 44, 45, 128-129.

us. What we do and what we think and what we desire at the present moment is largely (but not entirely), the result of what we have done and said and thought in the past. Subconsciousness is simply the permanence of the past in a man's present: his life's diary written in his nervous tissue and on the meshes of his muscular fibre. A man is not only what he is, but, in a very true sense, all that he has been. He is, so to say, a latent memory, capable of being organized and revived in favor of the present. Putting it still more concretely, subconsciousness is made up of instinctive drives, more or less disciplined, more or less held in check, linked up with sentiments; these sentiments being in turn built into complexes of remembered sense-impressions and abstract concepts. These complexes of thought, image and sentiment are the result of our experience and the reflection of the surroundings in which we live. They are partly equal and partly different in different men: different in the quality and number of images and concepts which have been stored up in the treasure-house of memory. A seaman's recollections are of a very different quality from those of the mountaineer. A bright man's memory is better stored than that of a dullard. But the emotional elements are largely the same in all, if not in intensity, at least in the quality of the urge. However different their stock of mental imagery might be, all men love, hate, fear, eat and have a natural inclination to preserve the species.

That being so, when a man feels the urge to create coming on him; when he must in some way or other express his ideal of beauty in terms of matter; he will be entirely dependent on the raw material which he has in

his subconsciousness. Imagine Michael Angelo locked up in a prison. If he has only clay, he will mould in clay; if he has plasticine, in plasticine; if he can seize a piece of marble and a rod of metal which might serve as a chisel, he will create in marble. But all artists have in their innermost selves a creative urge locked up as in a prison. And this urge also seizes what it can in order to realize its ideal. If a man's auditive memory is stored up with harmonies, he might write the *Unfinished Symphony* or the *Pathétique*. If his mind is filled with rhythm and his senses are drunk with light, shape and color, he might, like Swinburne, breathe a gust of frantic passion into a turbulent multitude of verbal symbols. Goya would be projecting his fearful soul into weird gruesome shapes and colors. But all of them, whether they be a Schubert, a Swinburne or a Goya, whenever they are inspired by a vital contact with reality, will tend to draw the raw material of their inspiration, to a great extent at any rate, from their subconsciousness.

(D) INSTINCT AND LOVE CONTRASTED

If this conception of man's nature were that of a materialist, here the analysis of the sources of creative action would end. There would be a biological hereditary substratum and a subconsciousness abundantly stored up with sense impressions. These two would constitute the raw stuff for the creative activity to work on. Instinct would do the rest. The animal drive in the artist (for example a suppressed sexual urge) would set the machine in motion. The machine would then proceed to associate impressions, stitching them together. Such an explanation

of creative activity is like trying to explain *Hamlet* without the prince of Denmark.

First of all, no amount of instinct will ever explain man's love. As all those who have experimented with animals know perfectly well, you can never get an animal to acquire a habit (for example to tread a maze) if you do not stimulate its appetite for food or sex, or its fear of pain or its dislike of restraint. Chimpanzees only move in order to reach for food, or seek their fellows, especially the female chimpanzee, or to stretch their muscles, or to get away from some annoyance or to fight an enemy which is depriving them of food or threatening their lives. The object of their activities is always some three-dimensional thing, capable of stimulating their instincts. Hence animal activity is not autonomous; animals are not determined from within but from without. Hence also the quality of their urges, which are essentially selfish. Further, animals never transform anything into that sort of aesthetic unity which we call beauty: The least advanced of men, the primitive, is capable of drawing, and sometimes draws most beautifully (like the bushmen of Africa) the very things he sees and uses for his nourishment. Bushmen kill and eat deer. But they also draw deer, and with a grace and skill worthy of the greatest artists.²² That, however, is not the case with the monkey. The chimpanzee sees and eats bananas but has never been known to draw a banana. It lives in the woods and uses the branches of trees but has never carved anything into the wood of those branches. Just as it cannot abstract meaning, it cannot impart form. The weight and quality of its instincts (made for food and

²² H. Read: *The Anatomy of Art*, New York, 1932; pp. 43 ff.

sex) keep it fatally fettered to one exclusive aim: self and race preservation. Such is the "libido".

As has been already pointed out, the quality of man's creative urge is entirely different. Take the case of Beethoven, who does not marry in order to consecrate himself more and better to his music. Think of Van Gogh, who prefers starvation to a life without painting. Both Beethoven and Van Gogh had animal urges. But the strange thing about them is that, though their instincts may have been excited, they did not do what these instincts demanded of them on such occasions. They did not seize the instinctive satisfaction. They were not fatally swept into food or sex. The instinctive drives were there. But there was besides another urge present which cannot be identified with instinct since it does exactly the opposite of what instinct is shrieking after: it gives, it creates; in Beethoven's beautiful expression, "it hews out of itself." This sort of action is not determined from without but from within; it is not selfish, because it seeks beauty, which is absolutely useless; it is not material because it controls matter and because it is fixed and set on that which is immaterial in its object. Think of the form which penetrated a coarse piece of marble, when the artist of Milo transformed a lump of stone into the immortal torso of a perfect woman. As will be seen in the next paragraph, such an ideal form is not material and can only proceed from an immaterial activity.

(E) IMAGINATION AND THOUGHT CONTRASTED

If instinct is the mere shadow of love, sense and imagination are the shadows of thought. No degree of imagination

alone, no amount of "association" or "bond-making" or "conditioning" can explain creative thought. Association is simply "putting together", "stitching", "fusing", "adjoining", "summing", "adding", "heaping". But a work of art (as will be seen) is anything but a sum or a heap. Because it is not a sum, creative activity cannot be reduced to the function of an "adding machine". Here, as in the case of instinct, however, the trouble is that the associating process is co-present in man as well as the process of intelligence. Here, as before, co-existence is mistaken for identity. How often has this mistake been made, and with what fatal results. Hegel and with him all the idealists have made of the imagination and the senses a spiritual function. In other words, they have kept the intelligence and thrown out all the material processes. But behaviorists have gone one worse. They have kept the material processes and have thrown out the intelligence; they have, to use a graphic though familiar metaphor, thrown out the baby and kept the bath-water. A sane psychology will retain the reality of spirit and of matter and will not confuse them.

*Form in Poetry*²³

Take a work of art, a sonata of Beethoven, or a poem. If we read Francis Thompson's *Hound of Heaven*, for example, we see that, though the poem may be made up of hundreds of words and dozens of stanzas, there is, however, in the whole poem only one idea: man's absolute dependence on God. Remember the opening lines:

²³ See the beautiful analysis of "form" in Prof. Langfeld's *Aesthetic Attitude*, New York, 1920, Chs. VII-VIII.

*I fled Him down the nights and down the days,
I fled Him down the arches of the years,
I fled Him down the labyrinthine ways of my own mind
and in the midst of tears
I fled Him. . . .*

One stanza after another, one metaphor after the other, is simply a reincarnation of the same idea. Obviously, the imagination is there also and very active: great masses of images surge up like clouds from the depths of sub-consciousness according to the laws of association. But an image cannot be the internal co-ordinating principle of a poem: one in all its parts and one in the entire composition. Images are perfectly concrete things: they remain what they are: an arch remains an arch; a corridor, a corridor. An image may be glued to other images but it cannot become another image. An arch cannot become a corridor or a labyrinthine way. What is that, then, which incarnates itself again and again into each successive series of images, which is one in itself and one in every single part of the poem, which organizes them all, unifies them all, explains them all and makes the poem into a perfectly coherent synthesis: into a living, organic, beautiful harmony and not into a mere string of words?

Form in Music

What has been said of a poem is still more obvious in the case of a sonata. There, one "musical theme" is reincarnated in all possible keys into different series of specifically different tones. A tone is a tone and cannot be made into another tone. G is G and cannot be C flat.

But a melody can be written in G and reincarnated in C flat. In Wagner's *Tristan und Isolde*, that haunting melody of the overture runs like a breath of hot air through the whole opera in hundreds and hundreds of different note combinations, all in radically different keys. In conclusion, therefore, just as not all the sense impressions of the world could give the "notion" of a circle, because the pure mathematical conception of a circle simply does not and cannot exist in matter, for exactly the same reason, not all the bonds and associations of concrete notes could ever give the melody which is indifferent to any concrete particular set of notes, and can be realized in any of them.

Form in the Drama

In the case of *Hamlet*, it has already been seen how the thought of the writer condenses the whole action, with its multiple scenes and innumerable character traits in a simple, all-pervading unity: the doubting Hamlet. This conception dominates the entire play, one in every part and one in the totality of the drama. The same happens in any other dramatic work. In Sophocles' *Antigone*, the oneness in the play is the conception that "human conscience (natural law) is infinitely superior to any human command which contradicts the dictates of conscience." In Calderón's *Life is a Dream*, it is "the chastening influence of immortality over the wild urges of our animal instincts"; in Ibsen's *Ghosts*, "heredity", or "social responsibility"; in a modern descriptive comedy (in the style of Galsworthy) it would be "contemporary life" in its manifold phases. But whatever the time, the country or the style, drama is never a heap or a bundle of human actions.

Unintegrated human experience is correlated by thought, condensed and entirely compenetrated by one and the same idea, easy to grasp, to contemplate and to love.

Form in Painting

Consider the following example from the career of Turner, the great English water-color painter.²⁴ When he was a young man, he used to paint landscapes or whatever scenes he preferred just as he saw them. He was a sort of photographic apparatus. When he was about 23 years old, he suddenly started adding to his pictures little poetic quotations. And what is more, with these quotations, his style started to change. He was no longer content with painting what he saw, he started putting into his pictures something strange and entirely new. The following example will explain what is meant. Let us compare a photograph of the famous Bridge of Sighs, in Venice, with Turner's painting of the same. Turner's eye and the eye of the camera both stood before exactly the same thing: the Bridge of Sighs. Why is it that Turner saw the bridge so differently from the camera? What did Turner's thought add to the bridge as seen by the camera? Did he simply add to the reality of the bridge a heap of mental images or personal subjective ideas? Only a man who has no aesthetic sense whatever can possibly answer that way. Turner himself contradicts such an assertion. When Turner started adding little bits of poetry to his landscapes, he showed that he was no longer seeing as a camera does but as an artist. A camera

²⁴ P. J. Hamerton: *Life of J. M. W. Turner, R.A.*, Boston, 1879, pp. 83 ff.; and W. C. Monkhouse: *Turner*, London, 1882, pp. 66 ff.

reflects but cannot interpret nature. Turner reflects and does interpret nature. He reads nature as a child might read the page of a book. A camera (or a chimpanzee for that matter) takes in the letters of a written page but cannot abstract its meaning. A human mind takes in the letters and the meaning. Having read the meaning of a landscape and having crystallized its message in some lines of poetry, Turner proceeded to paint the scene and to fix its message or its spirit in the shapes and colors of his canvas. It was this "spirit", this "ideal", which guided his hand. When he added this or that shade of color to his work, he was not merely "heaping", "juxta-posing", "gluing", "dumping" sense impressions or doing any other mechanical stunt. He was organizing, co-ordinating, incarnating a definite ideal unity into his whole work and into each single part of the same. He was giving to his painting that which a camera or the eye of a chimpanzee or a bond-making apparatus cannot give or even insinuate: form. Note that an image and a sense impression is a perfectly static, concrete and inert thing. An image is itself, and nothing more. It cannot therefore become the co-ordinating principle, the guide, the general spirit of a painting, one in itself and one in every single part, shade and color of the picture. This dynamic element which is capable of permeating the whole of a canvas, informing its colors and unifying its traits, which makes an organic unity out of a heap of sense impressions, somewhat as life makes a heap of inorganic chemicals into the beautiful unity of a human, living body, is the spiritual ideal, born of a spiritual element in man's nature: thought driven on by an utterly unselfish love.

Absence of Form in the Drawing of an Insane Person

Form is the seal of man's creative thought on sound or color or matter or language or human life. When a man becomes insane and his imagination works as a mere bond-making apparatus, one would naturally expect that such a person would be incapable of imparting form to that which it tries to mould. Facts confirm such expectations. A brief inspection of Professor Prinzhorn's collection of such pictures at Heidelberg University would provide the best proof. More at hand, however, is a picture borrowed from Dr. Kerschensteiner of Munich and reproduced by Spearman in his *Creative Mind*. It is a drawing made by a schizophrenic patient, who had been a draughtsman.²⁵

The drawing is framed in by four shoe-soles. Into each of these shoe-soles have been inserted four human portraits. They are weird pathetic looking faces; in one case these faces are half fused into each other, like cancerous growths. In the other case the figure is holding two small shoe-soles to its cheek. In the upper centre of the picture is a beam, topped by a small cross and on the beam is to be seen an inscription. Under the beam is a crowned eagle holding an anchor. On closer inspection the eagle shapes itself into the top of a war helmet and under it is what may be guessed to be a face. Round about, half melted into the background, one sees a series of rather repulsive looking objects: faces like growths oozing into each other; a hand; a sort of corpse wrapped up in a mess of what looks like hair; signs and cyphers mostly in the shape of a "c" or a "5".

²⁵ C. Spearman, *Creative Mind*, London, 1931, pp. 68-71.

The drawing is an admirable example of pure association of ideas. There is no "oneness", no co-ordinating principle, no form. The picture is an aggregate, a heap, a hash. It is the characteristic product of a mind which lacks thought and is given over to the chaotic dominion of mechanical association. But even Velazquez would have painted like that if his mind had been the "bond-making apparatus" which behaviorists like Dr. Thorndike say it is.

Form in "Cubism"

Compare this pathetic nonsense with the kind of art which seems wildest and strangest to the ordinary man: cubism, in particular, Picasso's *Picture of a Lady*. At first, the impression one might derive from this strange picture is that Picasso must be mad. On second thought, however, one sees that there is a tremendous unity about it. First of all, it is entirely dominated by one fundamental single pattern. It is a study in prisms. Whatever is expressed there has a prismatic shape; it is, so to say, prismatically expressed. The lady has prismatic hair, prismatic nose and lips, a prismatic chin. This consistency to one principle, this presence of just one all-pervading *leit-motiv*, would be sufficient alone to show that here is no madman but an extremely able draftsman, experimenting in a new drawing technique. Picasso, like other cubists, was groping for the architectonic elements of things. He reacted against impressionism by going back to architectonic objectivity. He painted, so to say, the ribs or skeletons of the objects he saw. However weird and strange his picture may appear, it is supremely consistent to itself. It is the child of thought: it is one; it has form.

(F) THE PSYCHOLOGY OF CREATIVE POWER

Form, then, is not a heap or a bundle or a pack of assorted sense impressions. It is a new intrinsic unity, one in itself and one in all the parts of the work of art. It is breathed into things by that contemplative element in us, which is alone capable of producing new indivisible unities, where these unities did not previously exist.

It does not seem necessary to add that if the object of man's creative activity is form and form is spiritual, the function itself must also be spiritual. It is a law of nature that organs shall be proportionate to their objects. Roses are produced by rose-bushes and not by stones. Form or the indivisible unity of a work of art can only proceed from an immaterial urge.

Thought, then, which is an essential, living, harmonizing unity; thought urged on by love, which is an unselfish, self-giving, creative tendency; in Dante's words: "*l'amor che move il sol e l'altre stelle*" ("The love which moves the sun and the other stars"), thought and love are the essential sources, of man's creative power.

Sensations, sentiments, images, concepts, stored up in that subconscious treasure-house of our mind which we call memory: all are merely the raw stuff into which intelligence and love mould their ideal intuitions. In all this process, imagination, instinct and emotions may be the props and the accelerators of the creative act, but only love can be the unselfish, conquering self-giving cause.

Man is not a machine and not even a glorified chimpanzee. There is in him an autonomous, responsible function, in virtue of which he is not the slave of matter, but its master; not the bondsman of instinct, but its ruler;

not the victim of external circumstance, but its conqueror: more powerful than poverty and fashion and prejudice, the architect of beauty and the inspirer of men.²⁶

Thus does man participate in his own finite way in God's creative power: *Creator Spiritus*. Admirable destiny is this, to which some few men are called by virtue of their genius and their temperament, but to which all of us are destined, if in a lesser degree, with no less urgency, since our nature is specifically spiritual and our love immortal.

*Generations have trod, have trod, have trod;
and all is seared with trade; bleared, smeared, with toil;
and wears man's smudge and shares man's smell; the soil
is bare now, nor can foot feel, being shod.
And for all this, nature is never spent;
there lives the dearest freshness deep down things;
And though the last light of the black west went,
Oh, morning, at the brown brink eastward springs—
because the Holy Ghost over the bent
world broods with warm breast and with ah! bright wings.*
—Gerard Mawley Hopkins

²⁶ See the following admirable analysis in Lowes, *op. cit.*, p. 427.

"Every great imaginative conception is a vortex into which everything under the sun may be swept. 'All other men's worlds,' wrote Coleridge once, 'are the poet's chaos'. In that regard, The Ancient Mariner is one with the noble army of imaginative masterpieces of all time. Oral traditions—homely, fantastic, barbaric, disconnected—which had ebbed and flowed across the planet in its unlettered days, were gathered up into the marvel of constructive genius, the plot of the *Odyssey*, and out of a tissue of old 'märchen' was fashioned a unity as palpable as flesh and blood and universal as the sea itself. Well nigh all the encyclopaedic erudition of the Middle Ages was forged and welded in the white heat of an indomitable will, into the steel-knit structure of the *Divine Comedy*. There are not in the world, I suppose, more appalling masses of raw fact than would stare us in the face could we once, through some supersubtle chemistry, resolve that superb organic unity into its primal elements. It so happens that for the last 20 odd years, I have been more

(3) EDUCATIONAL CONCLUSIONS AND PRACTICAL APPLICATIONS

(A) THE QUANTITATIVE APPROACH TO THE STUDY OF CREATIVE POWER. THE MEASUREMENT OF ARTISTIC TALENT

It has already been pointed out that the word "measurement" is a captious one. Love, which might roughly be described as the dynamic aspect of thought, cannot be measured directly for the simple reason that it is a spiritual, non-dimensional urge. But the emotional reactions which accompany the aesthetic experience (for example a person's emotional reactions to color or music) can be measured. The quantity of artistic achievement can also be numerically tabulated. Its degree of excellency can only be qualified. Numbers are irrelevant when it comes to judging the *leit-motifs* of Parsifal.

Seashore's²⁷ *Measures of Musical Talent* test a person's sense of pitch, sense of intensity, sense of time, sense of consonance, tonal memory and sense of rhythm by con-

or less occupied with Chaucer. I have tracked him as I have tracked Coleridge, into almost every section of 8 floors of a great library. It is a perpetual adventure into uncharted Ophirs and Golcondas to read him—or Coleridge. And every conceivable thing which Chaucer knew went into his alembic. It went in—a wail of travel-lore from the mysterious Orient, a presumptive bit of psychiatry, a racy morsel of Jerome against Jovinian, alchemy, astrology, medicine, geomancy, physiognomy. Heaven only knows what not, all vivid with the relish of the reading—it went in stark fact, 'nude and crude,' and it came out pure Chaucer. The results are as different from the Ancient Mariner as an English post road from spectre-haunted seas. But the basic operations which produced them (and on this point I may venture to speak from first hand knowledge) are essentially the same."

²⁷ C. E. Seashore: *Measures of Musical Talent*, sold at the offices of the Psychological Corporation, 522 Fifth Avenue, N.Y.

trolling his achievements in all these fields. Because these senses are the specific prerequisites of musical talent, such tests can serve as a useful instrument of selection. They eliminate those students who are incapable of musical education and reveal immediately those who are well or excellently endowed. They tell us nothing, though, about the creative capacity of their minds in the musical sphere.

Révész²⁸ distinguishes accurately between musical creative power and the capacity to enjoy music. Some of his tests attempt to diagnose this creative power and they include such functions as these: melodic rhythm, absolute hearing, relative hearing, chord analysis, the perception and vocal repetition of melodies and instrumental repetition of melodies playing them by ear.

A person's sensitivity to color is related to his artistic capacity. This sensitivity can be estimated by testing a person's physiological reactions to different colors (alterations of the pulse, breathing, blood pressure, muscle tone, glandular secretions and electrical conductivity) or by noting his conscious reactions, as when he tells us what he felt when such and such a color was shown.²⁹

Attempts have also been made to standardize certain art judgements and test a person's artistic ability by having him judge certain pictures, placing them in order of merit. The student's placement is then compared to the standardized series. Art judgement is notoriously subjective. There is, however, *some* difference between a portrait by Zuluoga and the sort of doll's face one sees on cigarette advertise-

²⁸ G. Révész, *Prüfung der Musikalität*, Zeit. f. Psychol., 85, 1920.

²⁹ P. M. Symonds: *Diagnosing Personality and Conduct*, New York, 1931, Chap. 11.

ments. If the standardized series is well constructed it can reveal a latent artistic talent.³⁰

Other tests have been devised which purport to control a person's sense of unity, of harmony, proportion and congruity in a picture.³¹ They are interesting and praiseworthy experiments and will probably lead to a better knowledge of the multiple factors involved in man's creative talent.

(B) HOW TO MOULD A HABIT

The first conclusion we can draw from this brief analysis of man's creative power is that a mental habit has an extremely complex structure. Beethoven, for example, had trained himself to the highest pitch of musical efficiency. The writing of music was to him a second nature, a habit. What elements would enter into the formation of such a habit?

First of all, there is a natural hereditary disposition. Without this inherited biological substratum, all the practice in the world would not have made an artist of him. Optimistic educators who want to train every boy into everything, forget that a habit is the organization of an inborn tendency, and that where this inborn tendency does not exist it is useless to attempt the formation of a habit. You cannot train every boy into a leader simply because every boy has not got it in him to become a leader. On this biological fact is based the principle of selection

³⁰ Kate Gordon: "A Study of Aesthetic Judgement", *Jour. of Exp. Psych.*, Vol. 6, 1933.

³¹ R. Alice, Drought: "A Survey of Studies in Experimental Aesthetics", *Journal of Educational Research*, Vol. 20, No. 2, 1929.

in education. Any school which trains a definite type must select.

Secondly, a great deal of practice is also necessary. We have seen that creative thought works on the raw stuff which an artist may have treasured up in his subconsciousness. The same could be said of research, business enterprise, etc. They all depend on experience. Subconscious memory, however, cannot be filled and enriched without a great deal of hard work: wide reading and constant drill are absolutely necessary. We are still in the domain of sense, imagination and movement; and sheer mechanical memory, association of ideas, bond-making have their legitimate place here. They are a necessary process, but only a part-process and by no means the most important part.

Finally, there is the ideal, the form. This is the product of man's thought. The ideal is only half visualized at the beginning, but it grows and grows. It is the guiding, all-pervading principle, which selects and rejects and co-ordinates, imparting its own unity into the heaps of mental images which flow up from the subconsciousness.³²

The constituents, therefore, of any mental habit are three: an inborn, original urge; practice; and a guiding ideal principle of reason. Over-emphasis on any of these three elements is fatal. Practice alone produces mere drill stunts. Idealism, without practice and drill, is barren and inefficient. All the idealism and the drill in the world are wasted in a person who does not possess the corresponding inborn tendency.

³² See Beethoven's introspective account of this organic growth on pp. 63-64.

(c) HOW TO INSPIRE

As was pointed out in section (1, b) of this chapter, inspiration is the greatest quality of a teacher. But inspiration is born of a vital contact with reality. In the study of the classics, for instance Latin, no inspiration can ever take place if the students never come into contact with the realities which lie behind the Latin words. Such are, for example, the strong living personalities of Cicero or Caesar or Tacitus; the tragic historical situations which motivated this or that speech; the state of mind or the soul conflict which inspired this or that lyric poem. All this, moreover, must be seen as actual and modern; not because it is interesting to see it as modern; but because men and human problems remain always fundamentally the same. The spiritual conflicts which prompted Aeschylus to write his *Prometheus* are not different from the moral upheavals which made a man like the Mexican muralist, Orozco, paint the terrifying frescoes of Pomona College. This actuality of the past in the present gives to the works of dead authors a tremendous reality.

Realism of this sort is not only necessary in literature. It is equally indispensable in any scientific field. No great biologist has ever been without a deep yearning to penetrate that mystery of life which manifests itself under so many and so different forms in the different levels of existence. A truly great historian is captivated by the spectacle of man working out his destiny in this world. History becomes thus, not a series of names and dates, but the great laboratory of mankind, where all man's reactions and specific forms of behavior may be studied. Philosophy (including literature, which is concrete phi-

losophy) is thus seen as the autobiography of man: his "confessions", as terrible in their miseries as great in their aspirations, and sometimes, at least, in their achievements. As for mathematics, chemistry, geology, etc., all the sciences have a fundamental meaning which is their innermost reality. Great scientific leaders have derived their inspiration from an intimate contact with this reality. That is why they were inspired and inspiring. And it should be the business of all teachers, through an accurate knowledge of the lives and writings of such men, to communicate this sacred fire to their pupils.

(D) THE POWER OF IDEALS

It is in the field of art that one sees the strange and extraordinary power of beauty over human life. Utilitarians may despise it; but they are despising the greatest force in creation. Again and again in the history of art men have sacrificed everything, from money to health and even family life, for the sake of beauty. Plato understood this so well that his education of youth is essentially based on art.

It is a curious thing, sometimes overlooked by intellectuals, that men can love intensely that which they hardly understand, if it is presented to them in a beautiful form. Art makes things easy to contemplate and irresistibly lovable. The conclusion which one may draw from this fact is as obvious as it is important. Since youths cannot understand many things, from sheer lack of maturity, teachers should start off by making them love that which they are to understand later: virtue and science; man and nature; and, above all things, God.

(E) TRAINING FOR UNSELFISHNESS

The moment a man starts to beautify something, in that very instant he has ceased to be selfish. He is giving without receiving. He is considering the thing which he is moulding not as useful, but as lovable in itself and therefore worth beautifying.

It is not only the great artists who beautify that which they touch. All men have it in them to beautify anything somewhat; more or less according to their inborn capacity. The coarse person uses things. He has nothing to give. He only grabs and takes. The "humane" personality (without affectation, of course) gives to everything he does a finish, a touch of perfection which are a joy to himself, and to all those who live with him. He cares for his own person, for his own mind, for what he writes and says, for his home and garden, for his friends and for the land he lives in. He wants to give everything something of himself. He loves and he is unselfish.

There should be no need to add that it is most important for all teachers, that they should train children and adolescents to love beauty and to give beauty. Not only in the material sphere, naturally; although in the very young the training must necessarily start off there. But also in the moral and social. Heroism is simply moral beauty. Thus the cult of the beautiful, when carried out in a healthy virile way, is the most social of all trainings. It is a training for unselfishness.

(F) THE SOCIOLOGY OF ART

From the analysis of beauty which we made in the last chapter, it is not difficult to deduce the kind of influence

which beauty has exerted and is still exerting in the life of men. Though beauty as such is not "useful", but something eminently "for its own sake" and "an absolute", because beauty has always some sort of content (some truth, some good or other), in the concrete, it cannot help being useful. Expressing it briefly, the historical rôle of art has been the fixation and consequent perpetuation of truth and goodness. Beauty has such a strange power over men that, if a truth, or a goodness, or in fact any object, is set in a beautiful form, men will do all in their power to preserve it. Take, for instance, that mutilated torso which is called the Venus of Milo. That lump of marble has escaped destruction because of the beautiful form which transfigures it. There is nothing so lasting as beauty, precisely because it is condensed spirit.

In some cases art has been the means of producing a national consciousness, because it unites men in the love of one common spiritual good. That is the case with Dante's *Divina Commedia*. Dante has done more for the unification of Italy than any man outside the apostles who converted her to one religious creed.

Further, after religion, it is art which has the greatest influence in setting national standards of taste and even of morality. Any beautiful work of art necessarily acts as a sort of norm. We judge of other things in terms of those things which have appealed to us. They standardize, so to say, popular opinion, as is the obvious case with fashion.

Finally, just as it refines the individual, beauty refines an entire nation. One of the reasons why industry has brutalized so many men is precisely because, in general, it has had little concern for beauty. Even now, because

it hinders so many men from a legitimate exercise of their creative power, it is doing incalculable harm to our generations. It is not enough that men should indulge in the cult of beauty in their hours of relaxation, as certain industrialists seem to think. If they can put nothing of their personality into their work, they are not happy. One's work is the reflection of one's self. And the man who sees the seal of his own personality in his work, acquires a sense of power.³³ Pathologists know this so well that they use work as an instrument of remedial treatment and, as has been shown again and again, with great success.³⁴ Give a man a certain sense of power, and he is a new man. Make a man go up and down in an elevator working the levers the whole day long, and sooner or later his emotional life will be disturbed. For that man can create nothing. There is no derivative for his emotional life; there is no catharsis. Charlie Chaplin, in an unforgettable scene in *Modern Times*, revealed humorously the nerve-racking effect of mechanical action. The "series" system in the automobile industry may be very useful for that industry but it is very unhealthy for men. Man's work ought to make it possible for him to give something of himself. If he is not expected to give anything; if, on the contrary, he is expected to remain aesthetically barren and just work like a piston, sooner or later nature will take revenge. Such men will be dehumanized. And you can do no greater injury to a nation than to dehumanize its population.

From the above it can be deduced that the social in-

³³ See Alfred Adler: *The Neurotic Constitution*, 1918.

³⁴ See the *Besford Court Annual Report* 1923-30 and 1931-32. The success of the Besford Court system is due to their ability in giving their patients this "sense of power" through work.

fluence of art is very great indeed, but that the quality of its influence depends largely on the artists themselves. Artists wield the most powerful of all educational instruments: that loveliness which conquers the hearts of men, which fixes indelibly what it touches and perpetuates it through the centuries: "exegi monumentum aere perennius". But the question always is: to what are they going to apply this loveliness? To truth and beauty or to evil? In the first case they will be the educators; in the second the corruptors of humanity.

Because of the important sociological rôle of art, it is obvious that the teacher, who is an artist, who is inspired and has it in him, therefore, to inspire others, who can make that which he touches lovable, will exert a lasting and powerful influence on his pupils.

The Catholic Church, which is loyal to nature and is always ready to employ in the service of truth and goodness anything which is congenital to man, has always realized the possibilities of art, which have just been enumerated. She has, therefore, surrounded her dogma and her cult with all the appendages of beauty. Liturgy is simply the artistic revelation of revealed truth, and the Mass presents in plastic, lovely dramatic style, amidst the ever changing generations of mankind, the unchanging reality of the redemption.

"Stat crux dum volvitur orbis".

III. THE MAKING OF THE SELF

"It is clear then that in the moral sphere reason is the born master, made to command and control. Whereas the instincts are there, like subjects, made to obey. And note this: instincts, though controlled by reason, never become reason itself. For through discipline, the instincts are indeed saturated with reason and participate in its essential unity, but they retain all the while their own distinct individuality".—Thomas Aquinas, Summa Theologica.¹

"Every sort of moral, every sort of civil, every sort of political institution, aiding the rational and natural ties that connect the human understanding and affections to the Divine, are necessary in order to build up that wonderful structure, man; whose prerogative it is, to be in a great degree a creature of his own making; and who, when made as he ought to be made, is destined to hold no trivial place in the universe".—Edmund Burke, Reflections on the French Revolution.

(I) THE NATURE OF THE SELF-MAKING ACTIVITY

(A) UNIQUE QUALITY OF THE SELF-MAKING FUNCTION

Up to now, the discussion has treated of the nature of man's thought: man's basic urge after the meaning of things. Man the thinker was observed being moulded by his contact with the universe, whose meaning he was capable of assimilating and transforming into science. It has treated also of man's creative power: his urge to give:

¹ (1a. 2ae. Q. 60, a.1.)

to "hew out of himself" with utter unselfishness an ideal of loveliness. Man the artist was watched moulding into the raw stuffs of the universe the imperishable dreams of his mind.

In this chapter is considered man the righteous: man not being "acted upon" or "acting on" external things as in science or in art, but "acting upon himself" and organizing all the resources of his mind according to an ideal pattern of conduct which he has derived from nature, whose meaning he can penetrate. In science, man is primarily a passive object; in art, he is substantially an acting subject; in the domain of righteousness, man is subject and object, maker and made, artist and work of art. This making of himself by his own self is man's greatest achievement. A tree is a tree and cannot help being but a tree. A human, however, is not necessarily a man and can fail to become a man, as a visit to Sing-Sing Prison would easily demonstrate. A person has only the makings of a man in him and need not become one if he does not want to. In fact, he can make himself into a beast.

(B) REFLECTION OF THE SELF ON THE SELF

What does this making of the self by the self actually mean? In a former chapter it was indicated that, by thought, man the thinker steps out from this material universe which holds and contains him. He, the "held", the "contained", becomes the "holder" and "container". Materially, the immensity of the universe contains man, the little speck of dust. But by means of thought, the little speck of dust contains the immensity of the universe. There is something even more wonderful and mysterious than this to contemplate. In the field of righteousness,

man steps out of himself, looks at himself, contains himself and remoulds himself. Man is thus one and two: the "looker on" and the "looked at"; and all the while remains the same indivisible oneness in the observed and the observer.

There is absolutely nothing in the field of animal psychology which is, even remotely, comparable to this, the most mysterious of all human achievements: the conscious reflection of the self about the self. No animal function, even if multiplied by a billion times a billion, as Dr. Thorndike seems to suggest,² can ever be transformed into this sort of activity, which is one in the many and many in the one and is, therefore, intrinsically immaterial. A billion times a billion shadows will never make a reality; and a billion times a billion animal reflexes will never constitute human reflection. Both things belong to different spheres of existence.

This is a most important point, the bedrock of human psychology. Reflection and choice are the very roots of moral liberty. Take away this reflecting capacity of man, and all differences between crime and heroism are blurred out. Abraham Lincoln and "Public Enemy No. 1" are placed on the same footing; sanctity and debauchery become synonymous; and the basis of human society—effort, responsibility and moral greatness—is annihilated. The nature of human conduct, therefore, needs careful analysis.

(c) THE NATURE OF ANIMAL HABITS

By comparing human conduct with the conduct of animals, from the nature of their respective patterns of be-

²E. L. Thorndike: *Human Learning*, p. 181; and his *Educational Psychology*, p. 173.

havior can be deduced the quality of their functions. Animals (and men also, though to a much lesser degree) have at birth a sort of inborn knowledge which they do not have to acquire by experience. Two groups of salamanders are placed in a pool of water immediately after birth. One is allowed to swim about freely, the other is kept asleep from the beginning by means of some anaesthetic. When the sleeping salamanders have grown up, the effect of the anaesthetic is allowed to wear off. This group, which had certainly not learned to swim by swimming, because they had been asleep from birth, is able to swim about instantly without any difficulty, just like the other salamanders which had been swimming all their lives. Salamanders don't learn to swim, they do it by instinct. Instinct is an unlearned pattern of behavior.

Can these unlearned behavior patterns be modified? Are they plastic? Up to a point, they are. In fact, if they were not plastic, animals would not be able to acquire any habits or learn anything. Before it has learned its way about in a maze, a rat may not know the way it has to follow in order to reach the cheese. But even before it learns to tread any maze, the rat knows and must know two things, without which the learning would be impossible. It knows how to run and it has a natural, unlearned desire for food. The habit acquired by learning the maze pattern is based on these two unlearned tendencies: running and appetite. If these two original tendencies were not there, the rat would never be able to learn any new pattern whatever. All learning and all habit formation is simply the modification of some inborn tendency. The original urge (for example, the hunger and the power for

moving about) react to the material situation (the maze with the cheese in it); and the pattern of the maze impresses itself, putting it in a rather rough way, engraves itself into the original tendency, forming a habit.

The habits a rat has to learn in a house in order to get its food are not really so different from those which it learns in the maze of a psychological laboratory. The rat roams about the house, dodging cats and other objectionable beings, and adapts its original tendencies, hunger and capacity for movement, to the shape of the kitchen or the pantry. Thus it learns its way about the place just as it did in the experimental situation. But, and again note this, because it is most important: the rat does not choose the shape of the house, nor make it, nor is it in any way responsible for that shape. It adapts itself to it. The shape of the house and the consequent movement pattern are inflicted on the rat from without. In other words, animal actions and animal habits are entirely the product of the material surroundings in which the animal lives.

(D) MOTOR AND SENSITIVE HABITS IN MAN

It cannot be denied that in a vague, loose way all those actions of man which are destined to supply his purely material wants and are largely dependent on adaptation to material surroundings, do have a certain resemblance to the motor-habits of animals. In fact, quite a number of psychologists (for example, Dr. Thorndike of Columbia University) would not grant that there is any essential difference whatever.

A man's habits are the product of his surroundings. A man must earn a living, just as the rat must get at food.

The actions a man performs, his daily behavior, are decided to a large extent by the concrete way in which he has to earn that living. If he is a carpenter, his daily movements will be adapted to the shape of his tools and to the structure of his workshop; if he is a mason, the same, and so on. Some men do manage now and then to choose the sort of work they are going to do; but they are relatively few. It is, in the main, true to say that in order to feed and reproduce men have to execute certain movements and acquire certain behavior patterns, which, to a large extent, are not chosen but inflicted upon them from the outside.

So far there is, at least at first sight, little or no difference between a man and a rat. But, even here, the similarity is only superficial. For, even if a man must adapt himself to the material surroundings in which he lives, he does so consciously. A man gets at the meaning of what he is doing; consequently he can reduce his experience to language and to thought; he can formulate general principles deduced from that very same experience. Further, those very tools to which he adapts himself are the creatures of his own mind, he can remake them and change them, and, as a matter of fact, he is always improving them. Absolutely speaking, he can inhibit any of the animal tendencies which tend to drive him into action. For example, he can stay at home, if wants to, and starve. Of course, a man will not do this without motive and except in very extraordinary circumstances, precisely because he is reasonable. The very fact that a man in full health can commit suicide and in that way inhibit, once and for all, every single one of his material tendencies is

a proof that, absolutely speaking, he need not be driven into action by his innate material urges. That is not the case with animals, who, by the way, never commit suicide.

(E) THE SPHERE OF RIGHTEOUSNESS

There is another sphere and another world, as different from the world of matter as the ideal circle of the mathematicians is from the wheel of an oxcart; a world in which man is just as free as he cares to make himself and where his unique prerogatives loom out into an almost infinite greatness. This is the sphere of right and wrong.³ There man chooses his ideals, that is, the patterns of his soul. He is still subject to God's moral law, but in choosing the wrong or the right pattern he chooses freely. There he does, not what others want; not what the shape of tools or events impose on him; not what his instincts strive after; but what he wants. Because each successive action is autonomous, therefore is the sum of such actions, the habit or assimilated mind-pattern, entirely and absolutely free. Man can, if he wants to, become the architect of his character. This is the sphere of moral ideals, where each man is what he aspires to be: balanced or unbalanced; social or unsocial; controlled or uncontrolled; cowardly or courageous. This is the field of goodness and of evil, where not this or that part-function of man comes into play, but the totality of his being, and man is transformed into that which he loves: a miser if he loves money; a liar if he loves untruth; a libertine if he loves vice, or a beast if he delights in cruelty; but also a hero if he loves moral great-

³ The sphere of right and wrong has a natural basis and is not a subjective form in the sense of Kant. See paragraphs H-M.

ness and a saint if he loves God. Here man is independent of material shapes or configurations and his activity is not physically inflicted on him from without, but deliberately chosen and willed and self-imposed from within. Within each man there is a conscious sentinel; at the rudder of his soul stands amidst the changing waves of many moods the helmsman of his will.

Determinists (those who deny the reality of free will) may say what they like. The fact is that, on getting back to real life, their actions give the lie to their theories and proclaim the reality of human freedom. Free-will is the great, outstanding landmark in the field of human psychology. Against this conviction of mankind, based not on "mysticism", but on good hard scientific evidence, all sophisticated and pseudo-scientific protests look like smoky candles in the light of the mid-day sun.

(F) THE QUALITY OF MORAL HABITS

Watch man at the crossroads of good and evil. Watch him choose the pattern of his soul. Watch him act from within. Two examples will suffice. Happily for the honor of mankind a million others might be cited.

The first is the true story of a French peasant who lived at the time of the French Revolution.⁴ A certain nobleman's farm was confiscated and given over to the peasant who had been renting it. The nobleman went into exile and the peasant tilled his land, improved it and made money on it. The French government gave him titles of

⁴ From the Discourse pronounced by Cardinal Liénart at the burial service of Mgr. Lecompte, Bishop of Amiens, Amiens, 1934. The peasant here referred to was the grandfather of the late Mgr. Lecompte.

property and he was looked upon by all as the real owner of the farm. Some years later, political conditions having changed, the nobleman was able to return. His return, however, did not give him any legal right to a farm of which he had been deprived for political reasons. But one day, the farmer, having heard that his old master was back, appeared before him and said: "Sir, you were deprived of your land unjustly. I do not hold that a mere governmental law can give me the right to your property. I have kept it for you during your absence. Here are the deeds. Take back your lands and with your lands, take the rent which I owe you." The nobleman took back his farm and the peasant took back his poverty.

The case is interesting. Note how the peasant, having chosen the pattern of justice, when he might have chosen that of injustice, lived up to that ideal of behavior, in spite of the pressure from outside. The ambition of his family, the connivance of the government and the shrieks of his animal drives, that is, the whole material, social pattern in which he moved, were against him. If he had kept his farm, he would have had more and better food, more money and all the animal pleasures which money can always buy. But he chose his own soul-pattern, justice, and he crushed the exterior material shapes which tried to coerce him. He did not take the form of his behavior from the material world which surrounded him, as the rat does. He took it from the ideal world of morality. And "the force from within" conquers the thousand forces "from without". A rat and a chimpanzee must yield to instinct. Man is the captain of his soul.

The second example is an equally unforgettable story,

told in the book of Genesis, of a young man's triumph over mere brute drives, a story so often re-enacted (though with such different results) in all times and in all climates. A brilliant young man was made the manager of a rich man's business. "And he was of a beautiful countenance and comely to behold. And after many days his mistress cast her eyes on him, and said: come with me. But he in no wise consenting to that wicked act, said to her: Behold my employer has so put his entire confidence in me that he does not even know what he has in his own house. And there is nothing in this house which he has not entrusted to me, except you, who are his wife. How can I then do this wicked thing and sin against my God?"

This case, too, is interesting. The young man's integrity cost him his job and he had to bear the cruel vengeance of an offended woman. He refused to mould his life according to the shape of the material situation which he encountered; he was not one of those who "takes what he can", "just lives his life", or "lets it all rip", or "just wants to be happy", or "for just once goes the whole hog". The whole weight of his sexual drive was sweeping him down towards the abyss; yet he chose his soul-pattern not from the world of matter, but from the moral world. Here again is a form of behavior which cannot be observed in the chimpanzee. The inward pattern, the force from within, that force which no rat and no chimpanzee has ever had—crashes again the entire material situation, for the glory and honor of mankind and the confusion of pseudo-scientific determinists. This inward force is no "myth" and no "mysticism", but the greatest fact and the most important thing in psychology and education. Though one

thing is certain: educationalists will never be able to observe it in the cages of any zoological garden.

(G) THE QUALITIES OF MORAL AND ANIMAL
HABITS COMPARED

Thus is animal action as different from human action, in spite of many superficial similarities, as the crash of a rock on a mountain pass from the fall of a sculptor's chisel upon marble. The crash of the rock is blind, mechanical, brutal. The gentle fall of the chisel is quickened by intelligence and inspired by unselfish creative love. Animal action and human action belong to essentially different spheres which cannot be mistaken, except by obtuse and materialized minds, blind and insensible to anything which transcends sense and instinct. Animal action is shaped and does not shape itself; it is determined from without by material forces; its patterns are the patterns of material things; it is nailed down and fettered to food, sex and bodily movement, it knows no spontaneous self-denial; it lives exclusively for that which it can grab or gulp or squeeze. Human action shapes itself according to the patterns of the moral world which it chooses freely, and loves, and engraves in its inward fibre, with labor and with pain. Pain is the acid test of human action. Here animal drives crumble, but will reign supreme.

Such is the essential difference between animal action and human action. It is necessary now to consider how man's most varied and multiple activity can be organized into a pattern of absolute indivisible unity. Derived from the very nature whose voice man can hear in his con-

science and read in the world outside him, this moral pattern transcends the specific differences of all instincts. It is one in itself and one in each instinct, and constitutes therefore one more proof of the spirituality of man's substance.

(H) THE NATURAL BASIS OF RIGHTEOUSNESS

It is the privilege of man to be able to choose the patterns of his conduct. An animal cannot help being what it is. Man is what he wants to be. But what should man want to be? If he is the maker of his moral self, what shape, what style should he give to this moral fabric?

At such questions many psychologists would hurl the objection: psychology is concerned with "what man is"; not with "what man should be." This, however, is a shallow difficulty. As has already been pointed out, habits are not made out of nothing. A habit presupposes always an inborn tendency. The character moulder is not creating, he is simply organizing and developing original urges, which by constant discipline will be fixed in this or that shape and become a sort of second nature. Consequently, what men should be depends to a great extent on what men are.

In dealing now with what one might call the architectonic of character, the approach is from this definitely psychological angle. If character training is simply the organization of inborn tendencies, which are these original urges which have to be organized, and what is their nature? The moralist will give the abstract pattern according to which habits should be moulded. But these patterns must be "deduced from" and must "correspond

to" the real possibilities of man. The moralist must take his cue from the psychologist. This is the same as saying that human nature, taken in its entire concrete complexity, is the basis of morality. And human nature is definitely within the scope of psychology.

The importance and truth of this point will be seen from the following examples. The Soviets have been trying to develop in their unfortunate victims certain patterns of behavior which are impossible, because they do not take into account the real nature of man and, in fact, contradict it utterly. The person who tries to instil into a dog the habit of cooking is losing time and exasperating the unfortunate animal. It cannot be done, because the animal has not got it in him to cook. The dog experiences no need, as man does, to rationalize its food into harmonic combinations of flavour. So, when the Soviets try to train men to have no need of family, property or God, they are doing something far more absurd than the man who tries to teach a dog to cook. One might as well try to train men into not eating and not breathing. This sort of attempt, which would be amusing if it were not tragic, is based on a hopeless ignorance of human reality. Men like Pavlov are apt to think that human nature is a sort of machine which can be taken apart and modified at will; just as a motor might be taken apart and adapted to another use: formerly it drove a car, now it pumps water or saws wood. Human nature cannot be thus modified, pulled and stretched at will, like a telescope or an accordion.

It is the great responsibility of evolutionists (those most abstract of all metaphysicians) that they have auto-suggested the masses into believing that human nature

is fluid, like a liquid which might be frozen into any shape. Nietzsche⁵ is no less guilty. His theory of the "superman", evolving from the actual man, is just one more piece of fantastic metaphysics. Human nature is not modifiable at will, except within very restricted limits. Archaeology, history and a thorough study of primitive psychology (such as that carried out by the Viennese school), have proved this beyond all doubt.⁶ The conclusion is that if human nature is to be patterned and trained, it must be done according to the laws of human nature. That is the wisdom which lies in the deep old saying: "imperare, parendo": "to rule, one must obey".

(1) THE ARCHITECTONIC OF MORAL HABITS

Man is a strange combination of unity and multiplicity; simplicity and complexity. He is one in his reason (as has been shown), but he is multiple in his functions: he is made up of reflexes, instinctive emotional drives, imagination and spiritual urges. Consequently, each one of these functions must be disciplined. The man who builds a house does not make it into a kitchen alone, or into a bedroom alone, or into a living room only. The house must provide not only for one but for all those human activities, and comprise at least those three kinds of rooms. In the same way, character, which is simply the architectonic of behavior, must take into account all the different activities in man's nature and build up as many habits as there are different functions in man.

⁵ Friedrich Nietzsche: *Also sprach Zarathustra*, Leipzig, 1917-26.

⁶ W. Schmidt: *Prehistoric Man and Earliest Known Societies*, Oxford, 1935. (Vol. I of *European Civilization, Its Origin and Development*, ed. Eyre.)

There is, further, this second similarity between a house and the moral structure of a great human personality. In the case of the house, though the rooms be different, they are all built with the same end in view: man's adequate comfort. In a truly noble character, each single habit, though moulded out of a different inborn tendency, is, notwithstanding, saturated by the same indivisible principle. There is, consequently, in a great man's moral physiognomy, as in the portraits of the great masters, of a Velazquez or a Rembrandt, a unity of ideal, a consistency, a deep indivisible oneness which is the clearest proof that, in spite of many different functions, there is in man a fundamental spiritual unity. There is need, then, to examine the nature of this unity and how it compenetrates all human activities: the social as well as the instinctive and the emotional.

(J) REASON, THE ARCHITECT OF MORAL HABITS

It is the essential quality of right reason that, in all situations of life, it finds the right means to the right end: not too much, not too little, but the true proportion, in harmony with the ever changing circumstances of human existence. When a man consistently applies this principle to his conduct, he is a righteous man. He patterns his behavior, not in accordance with passion or prejudice, but according to right reason, which is the fundamental law of his nature. Such a man is said to live up to the ideal of righteousness.

This conception of righteousness may be simple and obvious. But it is none the less true. The best proof of this is the fact that this principle underlies the whole of

man's right behavior, whether he wants it to or not. The man, for instance, who refuses to tell a lie and insists on speaking the truth at any cost is merely using language for the end for which it is meant, to further human intercourse and not to deceive. He acts righteously, applying the right end to the right mean and that is the essence of all morality. It will now be shown in a concrete way how right reason organizes all the instincts and urges of man according to the ideal of righteousness.⁷

(K) REASON AND THE SOCIAL INSTINCT

Man is, first of all, a social being. Psychologically, that is so clear that one wonders how Rousseau could have ever imagined that human society originates by free human consent; like a fishing club or a glee-club, which originates because a group of people want to fish or sing. Social bonds are deeper rooted than that: they reach right down into the biological substratum of man, as has been clearly shown by the penetrating genius of Max Scheler.⁸ When a man is killed in the streets, for example, run over by a car, or shot by a criminal, the onlookers, whether they want it or not, feel a shudder of horror. One man suffers: they all suffer: they co-suffer. It has been claimed by ultra-intellectualists that this shudder is the result of an implicit syllogism. On seeing the man killed, the onlooker says to himself: "it would have been possible

⁷ Of course this presupposes a teleological conception of nature. But what thinker does not? First rate research workers such as Walter B. Cannon and R. G. Hoskins have shown that quite evidently. See W. B. Cannon: *The Wisdom of the Body*, New York, 1932, and R. G. Hoskins: *The Tides of Life*, New York, 1933.

⁸ Max Scheler: *Wesen und Formen der Sympathie*, Bonn, 1931.

for me to have been killed that way; but being killed is terrible; therefore I shudder." This conception of "sympathy" is absurd. There is in genuine sympathy no syllogism and no reasoning at all. The reaction is primitive: it wells out from the depths of the instincts; it is as spontaneous as rage upon being struck.

The interesting thing about this phenomenon is that it has a rational component. The rational component of sympathy is language. The correlative of *co*-suffering is *communication*. When a man speaks (and he speaks instinctively), he wants to share his thoughts with others; to give them his thoughts and make them think what he thinks; in other words, he wants to be "one with them" intellectually: to communicate. By means of sympathy he was one with other men emotionally; by means of language he is one with them "rationally". Language, then, is merely the rational correlative of biological sympathy and the proof that union or friendship are as natural to man as hunger or thirst. Man, said Aristotle, is a ζῷον πολιτικόν: a social animal, which is the same as saying that sociability is an instinct.

That being the case, it will be the duty of right reason to guide this social urge to its right end which is to unite; to promote love and good will and not disharmony: social amity and not class-warfare, as benevolent Communists would have it. Right reason thus applied to man's social instinct develops into the virtue of justice.

(L) REASON AND THE APPETITES (FOOD AND SEX)

Man has also an inborn appetite for food and an inborn appetite for sex. The aim of the one is to preserve the in-

dividual; the aim of the other is to preserve the species. If allowed to run wild, both lead to all sorts of corporal and social evils: disease, death and race-suicide. Reason, again applying the pattern of righteousness to these animal drives, tempers them and organizes them by the virtue of self control.

(M) REASON AND THE EMOTIONS (ANGER AND FEAR)

Man is also a creature of emotions: the two strongest being anger and fear. From birth on, they are both noticeable in man. They constitute what W. B. Cannon calls the "emergency" set. In their bodily effects, anger prepares for aggression, fear for flight. They are both connative urges of tremendous power and efficacy. They can lead man into disaster or lift him up to the heights of heroism. Organized by right reason, they develop into the splendid virtue of fortitude, which enables men to fear only what is to be feared: dishonor, disloyalty, untruth; and to fight only for what is right: truth, loyalty and honor. Reason, then, setting the seal of righteousness on man's emotional life, is the cause of fortitude.

Justice, self-control, fortitude: these are the three fundamental patterns of human conduct. Being three, they are at the same time one. This is no paradox but a beautiful reality. In justice, self-control and fortitude, the instincts organized are essentially different. Anger and fear are not the same; the food and sex appetites and the social urge are irreducible the one to the other. Yet the ideal of righteousness which moulds and patterns them all is the same indivisible pattern of the right mean to the right end realized in each one of man's inborn urges.

(N) THE ESSENTIAL UNITY OF CHARACTER

"It is clear then, that in the moral sphere, reason is the born master, made to command and control. Whereas the instincts are there, like subjects, to obey. And note this: instincts, though controlled by reason, never become reason itself. For through discipline, the instincts are indeed saturated with reason and participate in its essential unity, but they retain all the while their own distinct individuality" (St. Thomas). Thus there is, in the life of a righteous man, a wonderful unity amid a great variety of action. So in the Greek Parthenon the stones are many and individually different, yet they are all placed in harmony with the same indivisible plan of organic simplicity and unity: the one in the many and the many in the one.

This is no arbitrary conception of human character, construed a priori in order to prove a thesis. There is in the life of all men who have a real consistency of purpose (and the discussion is limited to such men), a definite unity given to all their actions by the ultimate end which they set themselves in life. In the purely material sphere, this is quite obvious. The movements, the gait, and even the health of a man, are strongly influenced by the practical aim of his life, that is, by his profession. There are certain professional attitudes, postures, movements and diseases. A trained eye can recognize a seaman in his walk. The heavy gait of men who cultivate the ground is characteristic of the European peasant. His body has, so to say, acquired the motor pattern of its daily routine. This is no less true of the moral order. As Professor Spranger of Berlin University has shown in his *Types of Men*,⁹ it is

⁹ E. Spranger, *Types of Men*, Halle, 1928.

the dominant ideal of his life which gives unity to a man's character. A hard-boiled business-man who is out for money and only for money acquires that ruthless hardness which is capable of much self-discipline in food and pleasure, but always in function of the one principle: money. The same for the ambitious man. His emotions, appetites and social instincts are patterned out by his reason, in view of that power and domination for which he yearns. Here is where the high correlations between moral traits are to be found, not, as Hartshorne and May¹⁰ seemed to think, in the immature characters of children whose ideals and aims have not yet worked themselves out into consistent habits manifested in the different functions of human life.

It is in the lives of those men and women who are put forward by the Catholic Church as her models where one finds most readily that definite harmonic unity of a true character; one in its ideal and one in every single function of its existence. The test for the canonization of any saint in the Catholic Church is always the consistent harmony (in a heroic degree) of all his actions to the one ultimate principle of right reason. Such men must be heroic in self-control, in fortitude, in social endeavor and in the basis of all virtues: prudence. If their being is not entirely shot through with the light of this ideal, they cannot be canonized. Take the example of Ignatius Loyola. Wounded at Pamplona, Ignatius was converted to God. His entire life and all his instincts were thereafter shaped according to one and the same fundamental ideal of Christian reason:

¹⁰ Hartshorne and May: *The Organization of Character*, 3 vols., New York, 1930.

the greater Glory of God.¹¹ Ignatius began by making a vow of chastity. Thus he subjected his animal instincts, food and sex appetites, to the aim of all Christian life: God's glory. On the way to the Holy Land, in Barcelona, later in Rome, and again and again during his life, he faced the greatest dangers without flinching. The two most primitive instincts in his nature, anger and fear, were thus subjected to the end of all Christian endeavor: God's glory. Finally he dedicated his entire existence to the moral and spiritual good of men: thus his social urges were directed to the same principle of Christian reason: God's glory. With a clear intuition of the ideal, detailed planning and infinitely patient execution, Ignatius thus organized all his instincts and their corresponding actions according to the same moral pattern: the greater glory of God. This ideal pattern, being one in itself, was compounded with an infinite number of acts, born of essentially different urges. What is that but a proof of the indivisible unity of right reason?

In the world of thought, meaning was shown to be the principle of unity. There are many letters to a sentence but only one meaning. And there may be many phenomena in a scientific field, but there is only one law (their meaning) which explains and unifies them all. In the world of art, form was shown to be the unifying element. Innumerable words, metaphors, sentences, expressing perhaps the experience of a life time, are condensed into just one simple unity, which is the form of the whole poem.

¹¹ See the autobiography of St. Ignatius in the *Monumenta Historica Societatis Jesu*. It is an extraordinary document of the utmost sincerity: full of that quaint but most significant detail which one associates with such old, humane chronicles as that of Joinville.

But in the field of human achievement, it is the ideal of righteousness, of the right mean to the right end, which unifies the life of a great man and gives to it all that inspiring oneness which is the seal of moral beauty. It is the old but absolutely irrefutable argument of the one in the many and the many compenetrated with the one. It is the unmistakable mark of spirituality; for matter is one and cannot be multiplied in the many: matter is one and, remaining one, cannot be compenetrated with all. But righteousness, being one, is yet the same in that torrent of multiple actions which is called a human life.

A truly harmonic personality does not happen by accident any more than clocks, or statues like the David of Michael Angelo, just chance to happen.¹² A beautiful personality is the result of strong consistent and luminous action. But the beauty of its fabric is infinitely more dazzling and more inspiring than that of those Grécian marbles, into which the spirit of Phidias breathed all the grace and the strength of his creative genius.

In conclusion, thought, creative power and the self-making activity, are the three characteristic human urges

¹² Hartshorne and May express a somewhat naive wonder at not finding a greater consistency in the moral habits of boys. More wonder might be expressed at their thinking that perfectly consistent and harmonic character can be found in boys and by the barrel-load. Most men just live their lives and acquire the habits which correspond to their profession. If they are Christians, they will tend to keep more or less integrally the moral law of their faith and to pattern their lives in accordance with Christian ideals. Since man is free, however, the fact that one has an ideal is no insurance against betraying it in this or that particular case. Knowledge is not virtue. It takes a hero to be faithful to principle always and everywhere. Heroes are, however, as rare as the masterpieces of artistic geniuses. It takes a very great man indeed to build himself up into the harmony of a personality.

which differentiate man from the beast. Meaning, form and righteousness are the specific objects of these urges. To these the beast never attains. Now meaning, form and righteousness are essentially immaterial objects. Immaterial, therefore, must be the functions by which they are attained. This is in substance the proof of man's spirituality. Between matter and spirit there is an abyss. Man is neither a machine nor a beast. He is partly animal but he is also partly spiritual.¹⁸ And with this conception of man, the only one which does not kill human liberty and does not do away with initiative and responsibility, education stands or falls.

(2) EDUCATIONAL CONCLUSIONS AND APPLICATIONS DRAWN FROM THE ANALYSIS OF THE SELF-MAKING ACTIVITY

(A) THE QUANTITATIVE APPROACH TO THE STUDY OF PERSONALITY. THE SO-CALLED PERSONALITY-MEASUREMENTS

It has been shown that the psychological factors involved in the formation of a human personality are many and varied. Its spiritual non-dimensional factors, such as thought and love, cannot be measured directly. Its physiological components, such as balance or unbalance of emotional life, and the quantity of certain achievements

¹⁸ This, obviously, is a radical departure from the views held by the materialists, like Pavlov, and the behaviorists, like Dr. Thorndike. If such a departure is made necessary it is not due to "mysticism" or "dogma" or "church psychology"—as determinists claim—but to the hard facts brought forward as scientific evidence in the foregoing pages.

can be controlled numerically. Their quality is beyond all numerical computation. Does it make any sense whatever to say that Captain Oates (the "gallant gentleman" who laid down his life for his fellow-explorers on their way back from the pole) was endowed with a "heroism quotient" of 170 or 180? Such human traits can at the most be qualified and any numerical expression of their perfection is either meaningless or merely the equivalent of a qualifying adjective.

Another element which cannot be measured is that basic unity, consistency and richness of character which constitutes a personality. Character presupposes firmness of purpose. Personality is more than that. Personality is integration. "*Anima mea in manibus meis semper.*" And a person will be more or less integrated in proportion as he develops all his inborn capacities and controls them in function of just one fundamental ideal.

Certain ideals, for example the ideal of wealth, are too limited to develop the whole of human nature. The artistic and human side of a hard-boiled money-getter will probably be neglected and even the moral aspect of his nature may suffer. The ideal of social service is higher and evidently tends much more to develop and unify a man's life. The religious ideal which organizes a man's entire life in terms of the service of God and man is alone broad enough to embrace the entire range of a man's potentialities and capable of developing them to their fullness.

The following example may illustrate what is meant. It is an historical fact that the Catholic Church, dedicated though it is to the one basic ideal of God's glory, has yet

developed activities in every single field of human endeavor. It is not only concerned with religious and moral life, but with art, science and human welfare, comprising everything from leper settlements in Asia to an astronomical observatory in the Vatican City. The reason is obvious. A society which exists for the glory of God and is urged on by a deep, passionate love for everything which is divine, cannot be indifferent to any form of reality, for the simple reason that all reality is a reflection of the Divine Nature. It will dedicate itself by preference to theology but it cannot be indifferent to entomology. And the same thing happens with certain individuals whose life is centered on God and whose entire existence is illuminated by his love. Psychologists might investigate with profit the life of such a simple individual as Alphonsus Rodríguez, canonized saint of the Catholic Church and lay-brother of the Society of Jesus. One might have surmised that this man, whose entire occupation during most of his life consisted in opening and shutting a door (he was porter in the Jesuit College of Majorca) would have been extremely narrow, cooped up and limited in his views and sympathies. His writings show the exact opposite. There is no particle of human or natural truth, goodness or beauty to which his soul does not respond. In his own simple unintellectual way he was a perfect character. He had the unity and the richness, the oneness and the multiplicity of a perfectly developed personality.¹⁴

¹⁴ It will be necessary in this context to say at least a few words on the psycho-pathological problem of a "split personality". The spiritual element in man's nature is non-dimensional and therefore cannot be disintegrated. But his biological substratum is material and consequently can be split. This splitting is called dissociation and it is well known

Modern guidance clinics and psychological service bureaus are not directly concerned with this unique aspect of personality: its essential unity and multiplicity. When they speak of diagnosing a man's personality they really mean a man's capacity to achieve profitable results in the concrete circumstances of life.

A man in business or industry or in the teaching profession is not a mere thinking machine. Besides being a thinker he is a creature of emotions, endowed with a responsible will, liable to disease and limited by his inborn potentialities.

The vocational diagnosis of an individual comprises consequently many different kinds of tests, intended to gauge

that hysterical temperaments are subject in a special way to this form of abnormality.

If for some reason or other (e.g. an inborn pathological predisposition, a blow on the head or a strong emotional upheaval) a man's nervous system is disintegrated, he may forget a large fraction of his past experience and in some rare cases the amnesia may be complete. That does not mean, however, that the spiritual element of his personality has been broken up. The split has occurred on the sensitive and physiological levels. Because a man's spiritual activities operate always in function of their sensitive and physiological components, once a split has taken place on the biological level, it will influence necessarily his consciousness.

Our conscious mind works on raw material drawn from the apperceptive mass, which is what one might call the store-house of experience. If an entire section of the apperception is dissociated, it is for all practical purposes non-existent. And a person will have to reorganize his consciousness in terms of the data which he controls. He will thus have to start life anew and may even imagine, if he is a suggestible character, as all hysterics are, that he is an entirely different person. As a matter of fact such changes of personality can be induced in the hypnotic state on many persons. Their past experience can be dissociated and they can be suggestioned into believing themselves entirely new personalities.

See William McDougall: *Outlines of Abnormal Psychology*, New York, 1926, Chapters 30 and 31.

a person's capacities in all possible fields, his health, his emotional life, his will power and sociability as well as his general intelligence and his specific achievement capacity in different domains. The method employed varies considerably but all competent guidance agencies require the school-record of an individual, his family background, facts about his heredity and health and his own detailed introspective analysis of his likes, dislikes and vital interests. They then proceed to give intelligence and achievement tests in the different school subjects (mathematics, algebra, geometry, languages, history as well as mechanical ability).

There is no doubt that such diagnoses (they can only be termed measurements in a metaphorical way) made by men of experience are of the greatest utility. They make a young man conscious of his power and his weakness. For many reasons a boy may have a latent capacity of which he is not conscious because the school has not given him the opportunity to develop it. Such a comprehensive testing system can make him aware of his possibilities. It does not exclude but merely supplements the analysis of an individual which his teachers may have made during his years of study in high-school or college. He will thus be enabled to judge what profession he is best fitted for. Because this entails at least a general knowledge of the requirements, actual possibilities and probable development of the different professions, such guidance bureaus often provide the applicant with very useful facts concerning all these aspects of professional life.¹⁵

¹⁵ See *Aids to the Vocational Interview*, Record Form B, by the Psychological Corporation, 522 Fifth Avenue, N.Y. Also Percival M. Symonds: *Diagnosing Personality and Conduct*, New York, 1931.

(B) SELF-RESPECT THE BASIS OF CHARACTER

It can be seen from the preceding chapter that there are great similarities between the artistic creative process and that of character formation. The artist loves a certain ideal of beauty, which he has derived from a living contact with reality, and he proceeds to incorporate it into matter. In the domain of morality, man loves a certain ideal of moral goodness, which he has derived from nature, from experience of other men's virtues and heroism and from his own innate desire of righteousness. He then proceeds to organize his life according to this ideal pattern.

But nobody takes pains to beautify that for which he has no regard or respect. It is well known that artists have a peculiar appreciation of the raw stuffs of their trades and know them and test them. They see their possibilities. Something similar happens with men. A real sense of one's own moral value is a great stimulant to moral goodness. On the other hand, there is nothing more stunting than an inferiority complex; that latent persuasion that one is useless in life. Hence McDougall's wisdom in stressing as he does the importance of self-respect.¹⁶

It is, consequently, most important that parents and teachers should give to their charges a true sense of their value and possibilities. Man must love himself, and he can only love himself if he appreciates his real worth. It is not a case of fomenting priggishness or pride, though, naturally, there is always a danger of that. What is wanted is that boys and young men should see by experience what they can do, and that they should be given an op-

¹⁶ W. McDougall: *Social Psychology*, Boston, 1926.

portunity of showing it in a practical way. Boys must be watched and studied. It sometimes happens that a school does not or cannot offer any opportunity to the special talents of this or that young man. That is why nonentities in school sometimes turn out in later life to be eminent men. But if the school is wise, it will endeavor to create such a large circle of interests that, as far as possible, all students will be able to show what they can do and thus acquire a concrete, balanced and accurate knowledge of their powers. Nothing succeeds like success. There is nothing more healthy than a certain amount of conscious efficiency.

For a man with a Christian background, the problem of self-respect is naturally much easier. The fact that he is a son of God, and the brother of our Lord, Jesus Christ, is the real base of his self-respect. If he is powerless in human affairs, still he has before him the infinite possibilities of the moral order. A sick boy or a stupid boy may be useless for men; he is never useless for God, whose Son died for him, of whose mystical body he knows himself to be a sacred member. The most miserable of creatures is still the real or potential member of Christ's mystical body. Therefore he must respect himself and all other men must revere him and love him. And on the basis of this self-respect he can strive to make of himself a worthy temple of God.

(c) STRENGTH OF WILL

It follows from the analysis of the moral order which has been made in the course of the last chapter that man is absolutely unconquerable in that domain. Pain, poverty,

torment (as history has proved again and again), cannot vanquish a strong will. That is the theme of Sophocles' *Antigone*. That is the historical significance of martyrdom.

As to the nature of this will-strength, it is necessary to remember that (as has been shown in the last chapter), it depends to a great extent on the ideals which are acquired by tradition or personal contemplation and engraved by exercise on the entire organism of an individual. There is always a danger of sheer voluntarism in will training, of wanting to have a strong will for the sake of that self-conscious "glow" of satisfaction that one feels in it. In the long run, however, such voluntarism is weakness. The warping sting of pain and the brunt of persecution can only be borne by the man who knows that the whole weight of reason and nature is on his side; that he has just and strong motives for what he is doing; and that because he is fighting for principle, God himself, the origin of all principles, is on his side. If a man be on the side of righteousness, whether a million or a billion men are against him, he will always have a majority. "Fiat justitia; ruat coelum."

(D) MOTIVATION

Because motivation has such an importance in training the will, it is good to remember that *from a psychological standpoint* a motive is not a mere abstract concept. A motive presupposes two things: integration in the apperceptive mass of the person (that is, a perfect assimilation with his mentality, a complete familiarity with his thought) and a certain emotional coloring. Neither of these two

elements seems to have been sufficiently stressed in either Aristotelian or Thomistic psychology of character. Plato, on the contrary, admirably developed this point in the *Republic*. Modern German psychologists of the Value-School have done the same. Goodness must be grasped, not only rationally but emotionally; it must be loved. Consequently, it should also be seen as beautiful; for beauty has this strange power that it makes everything it touches lovable for its own sake. Hence the immense social value of art as an educational medium.

(E) THE SIGNIFICANCE OF ACTION

As for action, its function in the formation of motives is double: it works as a ferment to thought and as a strong stimulant to emotion. A man who is kind to someone else, and has to make an effort in order to be kind, is naturally driven to more and more thought on the necessity of kindness. The difficult action reacts on his mind. And, because no human action is realized without some measure of affectibility, the ideal of kindness is thus associated to certain emotions. Finally, because the right action leaves in us always a "satisfiedness", a certain "glow", this pleasure is also embodied in the complex of thought, image, motor activity and sentiment which constitute the motive. That is the meaning of Blondel's profound phrase: "The action which is loyal is like the Ark of the Old Testament over which brooded the confidences of God." This is the same as saying that being good is a help to knowledge, because good action is the seed and the ferment of good thoughts and their corresponding images and emotions.

(F) APPERCEPTION AND MOTIVATION

It has been shown that the meaning of an unknown word, such as the German "Quatsch", can only be explained to another person in words whose meaning he already knows. The new must be linked up with the old. Every fresh item of knowledge must be integrated in the apperception of the student. Otherwise it remains mentally undigested. Something similar happens with motivation. When appealing to the ordinary individual and also to children, for whom pure abstract motives have relatively little significance, it is necessary to correlate new motives with the living powerful emotional interests of their lives. A boy who hates his arithmetic and for whom, consequently, the motive of its utility means very little may be led to study it with more diligence if he is promised a bicycle on obtaining good results in his arithmetic, the possession of a bicycle being a strong, emotionally colored motive. In such a case, the disliked arithmetic is made a means to the possession of a bicycle. Bicycle and arithmetic are thus made into a oneness in the apperceptive mass of already existing interests. Another boy may dislike Latin, yet like to potter about with pharmaceutical books and chemicals. One day he is made aware of the fact that many pharmaceutical names are in Latin. Latin acquires a new interest for him. The emotional interest in pharmacy has been transferred to the Latin, thanks to the integration of the new with the old motives.

This very obvious principle is of very wide application and, consequently, very important. It has a use, not only in the education of others, but also in the process of self-

education, to which all men are bound. There are moments of stress and difficulty in which our ideals seem to melt, like snow in the blazing sunlight. Further, the wear and tear of life wears our motives threadbare. It is necessary to build them up anew. How? By meditation. This meditation (which is not mere auto-suggestion), consists in the conscious linking up of our basic human interests with those higher ideals which are the ultimate norms of our lives. A young man, who feels the temptation to steal, stops and reflects. He considers the basic motives of his life: his bride to be, his family, his social standing, the love of his Creator; and he sees that all these are linked up with honesty. Such a meditation helps a great deal to reinforce his ideal.

Moreover, practice and familiarity make even distasteful things lovable. For it happens that things not liked in the beginning acquire an emotional appeal on being practised. Then they are liked for their own sake, which is obviously the ideal thing. The boy who started studying arithmetic in order to have a bicycle, little by little, helped by success, acquires a personal taste for the subject and might even develop into a mathematician. That way, by making transfer from things liked to disliked things, a boy's likes and dislikes may be tuned up to a right pitch. He will learn to love not only food and amusement but all the higher spiritual ideals which make man into a personality.

It follows that, in order to train a harmonious character, it is absolutely necessary for a man to correlate all the fundamental motives of his life. Here again, it is not a case of "gluing together" sense impressions, but of "see-

ing relations", that is, of making disparate motives into an organic oneness. In that way, when a man sees how all motives are correlated into a oneness, the strength of each motive participates in the strength of all the rest, and his entire apperceptive mass is brought to bear on each important issue of his moral life. Moral training is partly a question of introducing order into the apperception of an individual; of reducing a jumble of motives into a hierarchic unity; of bringing order into chaos. How that may be done by reason, "the architect of the soul", has already been discussed.

(G) RIGHTEOUSNESS BASED ON REALITY

It cannot be sufficiently stressed that moral righteousness is simply a loyalty to the meaning of nature, to the objective truth of things and to the law of their essential constitution. Such a conception of things makes man happy. Nothing can be more dismal in the course of time than the dreary imperative of a Kantian morality, based on the little pinhead of one's own minute individuality. Man must not be good "because he must", or because in a solemn and sentimental mood he says unto himself, "I want to impose upon myself this or that obligation." Such righteous "moods" pass. The barest acquaintance with the facts of life show that men have a strong tendency to be very free and easy with categoric imperatives which they themselves impose upon themselves. Man needs the bed-rock of God's will to stabilize his purposes and the ineffable consolation of His divine love to sanction his right actions. For a Christian, moreover, there is the revealed certainty that man in the supernatural order cannot

achieve anything without God's grace. This persuasion of one's insufficiency is the root of prayer and the origin of hope. And what is hope but the dynamical urge of one's being towards the source of all our good?

(H) ARCHITECTONIC OF CHARACTER

There is, as has been pointed out, a strong analogy between house building and character building. No house can be built without a plan and no man can be trained without a clear pattern of man's ideal character. This is obviously St. Thomas' doctrine¹⁷ and as he points out, no character is complete which does not embrace the totality of man's functions: appetites (sex and food) through self-control; emotions (fear and anger) through fortitude; social urge (love in all its forms: parental, brotherly, amical and marital) through justice; and above all the practical reason (common sense, or tact: for such are some of its modern names) through prudence. But reason not only trains the different functions, it must also train itself and adapt itself to the requirements of learning and science.

In accordance with this plan of man's character, educators should watch their charges and urge them not to develop in any one sense exclusively, but in all: not only to be self-controlled, but also social; not only plucky, but prudent; not only practical, but also efficient in the pure intellectual sphere. In that intellectual sphere must be developed the three fundamental habits of mind which

¹⁷ See J. Castiello: "The Psychology of Habit in the Works of St. Thomas Aquinas", *The Schoolman* (1936).

are to be studied in the third part of this book: the analytic, the synthetic and the intuitive.¹⁸

(1) EFFORT AS AN IDEAL

All this, however, cannot be acquired without effort. It is the old, old law of human life that: "in the sweat of thy brow, thou shalt eat thy bread". And by bread is meant not only our material food, but anything precious. Hence the immense educational value of austerity. Hence the significance of the motto so often and with such success preached by Ignatius Loyola: "Vince te ipsum", "Conquer thyself". This has been interpreted at times as voluntarism; but how falsely. This imperative is not an echo of Kant, but of Christ. "Si quis vult post me venire, abneget semetipsum, tollat crucem et sequatur me", "If any one wishes to be my disciple, let him deny himself, take up his cross and follow me." This conquest of the self by the self is not the result of a pride in oneself, but the natural urge of a strong personal love towards Christ. The "vince te ipsum" and the "tolle crucem", cannot be understood except in the light of the "sequatur me". It is not a self-centered, but a Christ-centered conquest of the self.

*Then welcome each rebuff
That turns earth's smoothness rough,
Each sting that bids nor sit nor stand but go;
Be our joys three parts pain,
Strive and hold cheap the strain,
Learn nor account the pang; dare, never grudge the throe.*¹⁹

¹⁸ See the analysis of these three basic mental habits in Part III, pp. 202-206.

¹⁹ Robert Browning: *Rabbi Ben Ezra*.

PART II

THE MOULDS OF
PERSONALITY

I. THE PRINCIPAL STUDY COURSES

"The shifting sands of 'the many' are strewn with the ruins of the kingdoms of men. Humanism, in warning us to recover the sense of the abiding 'one', but reasserts, on the basis of human experience, the Christian injunction to seek first the Kingdom of God".—Louis J. A. Mercier, The Challenge of Humanism.

(I) PSYCHOLOGICAL FUNCTION OF THE PRINCIPAL STUDY COURSES

(A) A HUMANE EDUCATIONAL POLICY DERIVED FROM A HUMANE PSYCHOLOGY

THE logic of reality is relentless. Given a materialistic psychology, the result is a purely utilitarian education. And a utilitarian education will be concerned exclusively with training men for wealth and domination. These are the only two things that count in the world of matter. As a means for obtaining wealth and power, skill is an indispensable element. Materialistic pedagogy is almost exclusively concerned with the acquisition of skills.

Given a humane psychology; given the power of the mind to abstract meaning, to acquire ideals and to transform the "self" into an ideal unity by the practice of virtue, a perfectly different system of education will necessarily follow. Humane educators cannot limit themselves to methods and skills. They will not neglect skills, because

there is a material part in man and this material component cannot be trained otherwise. But they will also give a great and preponderant importance to the integration of the mind by meaning; to the acquisition of ideals through a contact with the beautiful; to the perfect integration of man's intellectual and moral life by means of the arduous but most fruitful acquisition of righteousness.

The aim of this chapter is to sketch, in its general outline, the traditional conception of a humane education, in such a way that the objectives and their perfect integration shall be made clear. Because these objectives are ultimately based on the psychological function of the different study courses, it will be necessary to analyze these study courses, and thus see what is precisely the effect which they have on the minds of men.

The study courses may not always have these effects. Whether they do, will depend to a great extent, on the way in which they are taught. The degree of training acquired by a humane contact with these subjects will also be conditioned, naturally, by the intellectual capacity of the students. It has never been the opinion of humanist educators that study subjects have a magic power of producing intelligence.¹ The educational value of any course is based on the ideals and methods which it can communicate. The degree of assimilation of these ideals and methods on the part of the students will always depend on the inborn power of their mind.

This entire question is intimately related to the problem of "formal training" and of "transfer". In a later chapter a comprehensive survey of the problem will be made as it

¹ See J. Castiello: *Geistesformung*, Berlin, 1934, pp. 131-140.

stands after about forty years of experimental research. Today it is not only humane psychologists who defend the value of formal training, but even behaviorists like Dr. Thorndike.² No one any longer denies that methods and ideals acquired in one field can be generalized and transferred. Not that these results harmonize with the basic tenets of behavioristic psychology; but the weight of the evidence has been too strong even for the most deep-rooted prejudices.

(B) THE HUMANE AND THE UTILITARIAN ATTITUDE
IN EDUCATION COMPARED

By principal study courses are meant those study subjects which remain, even today, the basis of all education: languages, history, science, philosophy and religion. Many educators are persuaded that these study-subjects are, for the most part, taught and learned in such a way that students derive from their study a minimum of advantage. A man may have a gold mine on his farm and yet use the land for raising cattle; the land would be serving a useful purpose, but the question remains whether the land might not be yielding far greater profits if used in other ways. Something similar happens in education. The weakness of the so-called utilitarian attitude is that it is not sufficiently utilitarian: it disregards, and therefore wastes, the most precious educational values and consequently it re-

² Thorndike: *Educational Psychology*, p. 259 and p. 277. In these pages Dr. Thorndike does the utmost to explain the real fact of transfer, which he cannot deny, in terms of neural "identical elements". I must say that with the best will in the world, I have never been able to find "identical elements" in the field of matter. Dr. Thorndike, like many other materialists, after denying the existence of the spiritual, proceeds most comfortably to project "universals" into matter.

seembles the conduct of the man who would use mining land for pasture. That is precisely where it differs from the humane attitude. The humane attitude includes everything which is desired by the utilitarian, and much more.

The utilitarian attitude in education could be briefly summarized as follows. A boy studies languages in order that he may speak correctly and thus one day become, say, a good lawyer. He learns science that he may become a decent doctor, or engineer. But he need not learn much history. History has to do with men and things which no longer exist. It is therefore useless. As for philosophy, it is simply word-magic. Religion is more useful. It makes people "respectable", stabilizes society and can act as a sort of sedative on the masses when they become too irritable and unsettled. Religion therefore should also be taught in order that people might learn to behave themselves and be patient in adversity. In other words: practical immediate returns, in terms of cash, comfort and power, are the real criterion of this educational attitude. Men must be made efficient professionals. Being efficient professionals they will earn good money, live a comfortable life and be happy.

Now the trouble about such a conception of things is not that it is entirely false. On the contrary, the aims which I have just enumerated are, most of them, good and practical. Consequently, it is perfectly legitimate that men should desire these aims. The trouble with the utilitarian attitude is that it is only partly true; that it is incomplete and does not go far enough. That is precisely where it differs from the humane attitude. The humane attitude includes everything which is desired by the utilitarian and much more.

It is all very well to say that men must be efficient business

men and happy citizens. But if it is easily said, it can only be realized with great difficulty. It is a fact that men can only be happy if they are good. A society of malefactors is not a society at all but a living chaos and a hell upon earth. On the other hand it is equally certain that a training for practical efficiency is no guarantee whatever of moral righteousness. The better trained a man is, the more dangerous he becomes if he is bad. That is precisely the concern of education for a genuinely human life. It wants to train efficient professionals, but not only that. It wants to make them good. Further, it aspires to make them not only good, but also morally and intellectually beautiful. Beauty of mind is simply another word for culture. Culture is not a superfluity but an urgent necessity.

In many educational books dealing with culture, one finds expressions and phrases taken from the field of hygiene, gymnastics or medicine and transferred to that of psychology, which are simply metaphors and are meant as such. Yet they give an idea of the sort of mental habit one is trying to describe. Thus one speaks of perfect mental health, of mental poise, mental flexibility, nimbleness of mind, exactness, accuracy, in fact all those qualities which one notices in a healthy, beautiful body, capable of executing elegant harmonic movements. It was the fashion about twenty years ago amongst the enemies of formal training, and it still remains popular with behaviorists, to scoff at all these metaphors, as if they were mere phrases, empty and worthless epithets.⁸ As a matter of fact, these ex-

⁸ *Ibid.*, pp. 269-272. The texts here put forward for demolition by Dr. Thorndike are not to be taken literally. Anyone can see that the writers are speaking metaphorically. As metaphors, the ideas are perfectly valid and as true today as the day on which they were written.

pressions imply certain ideals and methods which as experiments have shown⁴ can be assimilated by the mind and generalized. Thus generalized, they can be transferred to other fields of knowledge and endow the mind with great beauty and efficiency. When a man, for example, is capable of assimilating the right method in the right field of knowledge, and does so quickly and well, he is said to be "flexible". Such persons do not insist upon thinking of politics in terms of mechanics, or if they do, they know that it is only metaphorically that such modes of thinking are legitimate. A healthy boy has a good appetite and by analogy a mind is said to be healthy when it has a great hunger for knowledge. In fact curiosity, as Terman notes,⁵ is one of the best criteria of intelligence. Why should not people then speak of "healthy minds"? When a man reflects before stating an opinion, when he insists on hearing both sides and on seeing a question not only in detail but as a whole, he resembles the athlete who is not pushed off his feet and driven hither and thither in the contest, but remains balanced and well poised, even under the stress. Why, then, should not that mental attitude be called "balance" or "poise"?

There are, then, certain mental attitudes derived from definite ideals, which develop little by little into the corresponding methods, and which give to the human mind a great beauty and harmony. The psychological research of

⁴ J. Castiello: *Geistesformung* (Berlin, 1934). In this book I have made a summary of all the experiments realized in the field of transfer from the first by William James in 1890 down to 1934. The conclusions summarized point obviously to the fact that ideals and methods do transfer. See also Thorndike, *op. cit.* above, p. 277.

⁵ L. Terman: *Genetic Studies in Genius*, Stanford, 1935.

the last thirty years has confirmed this claim.⁶ This harmony, this culture, does not take away from the efficiency of the mind; on the contrary it doubles its force. A cultured mind such as this not only speaks or writes, but speaks and writes forcefully and beautifully, and, consequently, exerts a greater influence than the dry-as-dust bore who makes unpleasant everything he touches. Moreover, such a cultured mind, having acquired that variety of interests which link a man up with other men and with all things, is much better integrated in a human society made up of such different types and professions than the hard-boiled specialist, who is locked up in the solitary confinement of his speciality. Of course, the great danger of culture is diletantism, superficiality, glibness and light erudition. That, however, is not real culture, but the pathology and the caricature of culture. Real culture is, above everything, love of truth and beauty, thoroughness, modesty, hate of bombast and hollow rhetoric; realism, accuracy and command of detail, without, however, losing sight of the whole.

Briefly, then, and in summary: the utilitarian wants to train efficient men; the humane educator wants to obtain efficient men, good men and beautiful minds. The one wants to obtain from an investment in language, history, science, philosophy, and religion, about twenty per cent of the dividends. The other wants one hundred per cent. The one is shallow and unpractical. The other is practical, precisely because he is deep. Naturally, he must pay the price of that greater depth by working more, longer, and with better methods; and with far greater idealism.

The whole question is: how is that to be done? The

⁶J. Castiello: *Geistesformung*.

answer is not very difficult. In each subject matter, the ideal corresponding to that subject matter must be assimilated no less than the corresponding skills and methods.⁷ The skill gives the efficiency, but the ideal gives the force, the drive, the hunger.⁸ Skills without ideals flicker out and die. Ideals, on the contrary, work themselves out into skills and methods. It is necessary, then, to derive from the study of any and all study subjects the intellectual, moral and aesthetic ideals which shall be capable of giving intellectual, moral and aesthetic force to our minds. Further, it is necessary to integrate all these ideals into a oneness. If they lie loose in our minds, if they are not correlated, their practical efficiency will be partly wasted. As pointed out earlier,⁹ when our motives are integrated, the force of one motive exerts an influence on all others. The man who knows that God loves all beauty, all goodness and all truth, will bring the whole weight of his religious life to bear on his artistic and scientific endeavors. The man who knows that true science is a great help to morality will be urged on to greater scientific efficiency by his ethical ideal; and so on.

The ideal, therefore, of a humane education is all-embracing. It seeks to adapt a man not only to his material surroundings, as the utilitarians wish, but to his material, ethical, aesthetic and religious environment. Pragmatism is partial, cooped up and limited. Humanism is universal. There is an inherent catholicity about humanism. It is "one in the many", and integrates "the many in the one".

⁷ *Ibid.*, pp. 131-140.

⁸ I. B. Saxby: "Some Conditions Affecting the Growth and Permanence of Desires", *British Journal of Psychology*, 1917-1919, Vol. 9, p. 93.

⁹ See pp. 128-130.

(c) THE PSYCHOLOGICAL FUNCTION OF LANGUAGES

Given the analysis of beauty and of creative power which was made earlier,¹⁰ it is not difficult to formulate briefly the psychological effects that the study of a language may have on any individual. Languages are taught and learned in works of literature; and literature is art.

The first, most obvious and very necessary result of a language study is to acquire skill in the use of concepts and of words which are the symbols of these concepts. Language is a practical habit, and it will be a real habit when a boy or girl has learned to express himself with ease, clarity and conciseness.

A utilitarian would be satisfied with the acquisition of this skill and go no further. The humanist wants all this and much more, for literature is something more than a "speech-school" or a school of expression. It is a school of idealism and spirituality: not only of this or that particular ideal, but of all ideals. Because literature deals with the whole of life, with the past and the present, with nature as well as with man, it provides us with a real arsenal of ideal values in all fields of knowledge. The specific utility of these ideals is that they participate in all the attributes of beauty. Because they are expressed in concrete, plastic, sensuous forms, they appeal to the eye and the ear. They are easy to grasp. Because they are soaked in the emotional life of the artist, they also appeal to the emotional life of youth. Because they are beautiful, they attract, captivate and bind to themselves, as only beauty can, whose privilege it is to make things lovable for their own sakes. Thus it is

¹⁰ See pp. 50-53, 85-86, 93-96.

that the content of the literary work, whether an ethical principle, or a scientific truth, or a philosophical thesis, when it has been endowed with the strange power of the beautiful, penetrates the totality of man, his senses and his imagination, his emotions and his intellect; and above all awakens his love.

No less important than this is the fact that the general ideal of beauty as such begins to penetrate little by little into the soul of the person. As the psychological analysis of artistic inspiration indicated,¹¹ creative power is an urge to condense multiple and varied experience into a simple, obvious unity. This integration of the varied and the multiple into the one is nothing more or less than a harmony. By dint of seeing this concrete lovely oneness the mind acquires the ideal of harmony and its corresponding habit. How far this ideal will be assimilated will depend to a great extent, naturally, upon the method of the teacher. But if modern educational research, with its tremendous emphasis on the influence of the milieu proves anything, it certainly shows this: that the mind does take on little by little, more or less rapidly, more or less consciously, the coloring of its environment; and that, consequently, a mind brought up in an atmosphere of beauty will tend to acquire the habit of beauty. This habit will be specific or general, in direct relation to the intellectual capacity of the individual and to the method of teaching. Bright children have a greater tendency to generalize than the dull. Experiments have proved again and again that, if left to themselves, children and even grown-ups generalize little; they do so

¹¹ See pp. 61-66.

readily if led on by a teacher who has intellectual breadth and force.¹²

The practical utility of this harmonic ideal is very great. Nothing in this world can be judged competently by an exclusive analysis of its detail. The parts can only be understood with reference to the whole. What is true of an individual problem or subject matter is also true of the universe as such and, indeed, of the whole of human life. It must be judged in detail and as a whole. It is, therefore, of the greatest importance that men should be trained to this harmonic habit of mind, which is analytic, synthetic and, at the same time, contemplative: because in all multiplicity it seeks the simplicity of the one.

The habit of harmony or beauty is, practically speaking, nothing more or less than a habit of perfection. When a man has been trained to beautify what he does, he instinctively proceeds to make more and more perfect everything he touches. He aspires to give it that oneness, that harmony, that noble simplicity which are the very essence of beauty. When once this habit has been generalized, when a man aspires to beautify all things, his personal acts, his relations with others and the environment in which he lives, we have indeed one of those personalities which are of the greatest social value. In fact, it is hard to see how in that "making of the self", which is simply another name for character training, any man can succeed who lacks this ideal and this habit of perfection.

¹² J. R. Overman: *An Experimental Study of Certain Factors Affecting Transfer of Training in Arithmetic*, Baltimore, 1931. Note the general conclusions of this interesting study.

The study of languages can become, then, a school of idealism. And, because it is a school of idealism, it is necessarily a dynamical school. It is the special quality of ideals that they are an idea and at the same time a force. When they are present, men are driven on, not from the outside but from within. Where an ideal is present, interest is present. And we all know the enormous educational importance of a living interest within a boy. Until the age of sixteen or seventeen, most girls and boys are not capable of scientific study. The scientific study of nature, of man and of God, is not possible until a certain capacity of abstraction and a certain ripeness of mind have been acquired.¹³ But, if the scientific approach to these questions is not yet possible, the artistic approach is open. The artistic presentation is intuitive, simple and easy to grasp. Moreover, this artistic presentation has the advantage of communicating a love, a living real and human interest for those things which must be studied later. Thus it is that literature, by communicating a fundamental curiosity for the things which it presents, is the necessary introduction to science, philosophy and religion. It sows the seeds of living interests which the university will one day reap.

But if that is so, if literary studies are the great means for planting living interests, then a most important conclusion follows. Literature must present us with ideals corresponding to all the fields of knowledge which a man ought to penetrate. It is obvious that any human being must be integrated in the world in which he lives. He is not a disjointed atom; he is an organic oneness integrated in another organic oneness which is called the universe. He must, then

¹³ G. Piaget: *Judgment and Reasoning in the Child*, New York, 1928.

be in contact with nature, with his fellow men and with his Creator. Consequently, he must know something of science, natural and anthropological; he must have a philosophical synthesis of knowledge and he must know his God. In some way or other, therefore, science, philosophy and religion must enter into any really complete education. If that is so, it will be the duty of literature to sow the seeds of interest towards all these things. In some humanistic schools, there is much too much unconcern for science. They seem to forget that Plato, master of all humanists, required ten years of scientific study as an introduction to philosophy. Literature, therefore, must include in its assignments not only historical and human situations, but also scientific, philosophical and religious topics, in order that the field of interests for any student shall be sufficiently ample and generous.

There is yet another most important function of the study of languages. Literature, as such, might well be termed, as Newman puts it in his *Idea of a University*, the autobiography of man. It is there that the tale of man's life is told, with its heroism and its miseries, with its depressions and exaltations, with its divine aspirations and its brutal tendencies. It is there that the whole complexity of man is seen and that one gets a glimpse of something which simply cannot be mechanical, because it is too free, too subtle, too complicated, too varied and too plastic. It is there that the mystery of human life is sensed and that the totality of its urges, material and spiritual, is concretely grasped. In other words, language-study is for a humanist a school of spirituality. This is most important. A man who knows nothing but machines will have a tendency to see everything in

terms of machines. He will transfer mechanisms into every field of human life.

As the author's experimental work on intellectual attitudes showed him,¹⁴ positive-scientists not only have a tendency to think of everything else in terms of their chemistry, physics or biology, but seem to lack a perspective for that which one might call the form of things. They respond almost exclusively to their material aspects. It is not strange then that they should have fallen such ready victims to the absurd fables, myths and dogmas of behaviorism and materialistic psychology in general.

Finally, even for the acquisition of skills, the ideal element in the study of languages is of the utmost importance. Not only does the ideal provide "the yearning" to speak and write, but it gives also the norm. Any man, for example, who has read Demosthenes' *Pro Corona* in the original, and has tasted the strength, the simplicity, the spontaneous natural outbursts of his most noble and virile heart, free from all affectation and magnificently realistic and sincere, will never write or speak again in the same way. Back in his mind, consciously or subconsciously, will be the hatred of bombast and hollow rhetoric, love of truth, and spontaneous realism. His style, that is his language skill, will have been transformed by his contact with an ideal type.

In summary, the psychological functions of language study are the following: (a) language studies communicate skill in the use of concepts and words; (b) they are a school of idealism and spiritualism; (c) finally, because literature, like any other art, is nothing more or less than "concrete, plastic harmony" (the harmonious representation of nature,

¹⁴ J. Castiello: *Geistesformung*, Berlin, 1934, pp. 62-105.

or man, or science, or philosophy, or of the things which are divine), language studies can be made into a school of harmony and perfection.

(D) THE PSYCHOLOGICAL FUNCTION OF HISTORY

It is extremely significant that in the early life of nations, literature and history very often have been identified. The *Iliad* was read by the Greeks as the history of their race. *La Chanson de Roland*, the Germanic sagas, the Spanish *Poema de Mio Cid*, all these give evidence of this fusion of history and literature. Young and immature societies consider history more or less as a picture gallery of heroes, whose duty it is to inspire them.

Certain modern conceptions of history, as the experience of the race, as the laboratory in which human nature might be analyzed, as the great school of sociology where the practical lessons of human life can be studied best, are not really so different from those of the ancients. Whereas the ancients sought only ethical stimulation in history, now not only moral inspiration in the deeds of heroic men is sought, but also a better comprehension of human nature and practical hints for our different policies of life. Of course there are historians who are only interested in facts. The artistic inspiration of history, however, is by no means dispensed with in these days. Great historians, such as Mommsen, Lingard and Pastor, made history into veritable works of art. In spite of technical ability and great accuracy, such writers retain a wonderful beauty of form and unity of conception. They have thus taught us that even today history can be literature, science, sociology, a source of inspiration and a laboratory for the study of man, all in one.

Psychologists who dispense with history, and hope to obtain an adequate knowledge of man by sheer experimental methods, are hopelessly mistaken. There are certain laws of human nature which cannot be investigated in the laboratory, because it is only in the course of the centuries that one becomes aware of their concrete pattern. Nobody better than Hegel saw that and, in spite of his extreme subjectivism and his monism, he did realize a wonderfully deep work in his *Phenomenology of the Spirit* where he tried to investigate certain laws of the human mind by means of a psychological analysis applied to historical events.

From a study of history, for example, an anthropologist might derive the following socio-psychological principles which are of the greatest importance. Needless to say that their full significance can only be grasped when they are seen concretely realized in the field of history:

The principle of interrupted progress. Progress is not a necessary trend in human life, whether individual or social. Societies decay, disintegrate and perish. Progress implies effort and idealism. When the moral ideals which build up a nation die out, the nation collapses. Egypt, Babylon, and Athens prove this with the irrefutable argument of their splendid ruins. Of course other factors—such as change of trade-routes—influence this decadence. But no purely material reverse can determine moral conduct as such. In fact history has shown again and again that with men of character purely material reverses act very often as stimuli to social renovation. It was the Moors who made the glorious Spain of Ferdinand and Isabella. The incursions of the sea have made poor little Holland into the garden of Europe

and the Dutch into one of the great colonial powers of our times.

The principle of unequal development. The intellectual progress of a nation need not run parallel with its moral development. In fact it generally happens that nations developed exclusively in the intellectual field, undergo a terrible moral decadence. Think of Greece after the age of Pericles. Knowledge is no guarantee for virtue. Lack of moral fibre reacts in such a way on the intelligence, that little by little this moral disruption is capable of disintegrating the culture of a nation. On the other hand a primitive culture often goes together with an admirable social righteousness as Prof. Schmidt of Vienna has recently proved.

The principle of religious stimulation. In most if not all nations, science, art and philosophy were born at the foot of the altar, as a complement to the religious cult. Men acquire knowledge and create art the better to serve the Deity. Little by little, what was a preparation for the sacred ministry becomes an independent human function. It then acquires a special development but tends to lose its integration in the general and fundamental ideals of human life, especially in the most fundamental of all: the religious ideal. The history of India, of Egypt, Greece, Rome, and Medieval Europe are a patent proof of this principle. The history of the American Universities is a further confirmation. The greatest of them started life as training colleges for the ministry.

The principle of social continuity. Just as in the individual man, his past lives on in his subconsciousness and exerts a strong influence on his present, so with nations. Each new culture is built out of the past. Think of the cultural series:

Egypt, Greece, Rome and the European nations. If history lives on in the subconsciousness of the race, it is quite obvious that to disregard history is not to disregard something which does not exist, but something which is *still* exerting a profound influence on the actual life of a people. The fact of the matter is that there is no such "past", except in the imagination of behaviorists. The past is an actual living influence and to disregard it is to disregard experience. Once in a while an individual appears in a city, not knowing where he came from or what he wants. He is suffering from amnesia. There is also such a thing as a loss of historical perspective. This is the sort of "historical amnesia" which seems the special feature of Mr. Dewey's philosophy.

The principle of oscillation. The human spirit passes from one extreme to the other: from romanticism to classicism and then back to romanticism; from rationalism to emotionalism and then back to rationalism; from liberalism to collectivism and then back to liberalism; from too much freedom to too much coercion. Amid this flux and reflux of fashion stands the Church of Christ: "A mind surviving many moods" (Chesterton).

The principle of Providence. In spite of so much evil and suffering in the world, much good comes from and in spite of evil. There is a Goodness in the world; there is an order. Great and noble ideals work themselves out into great nations. Corrupt cultures reap the reward of their corruption in total disintegration. Thus, even in history, one sees a half hidden harmony and a design. This design is more difficult to perceive than in literature or in science; but it is there all the same. As the Spanish proverb has it:

"Even with crooked lines, God knows how to write straight."

History, then, can also be termed a "harmony". If a work of art is the concrete, plastic harmony of man's reason incorporated in matter, then history is the concrete, plastic representation of God's Providence, that is, of his divine Reason, embodied in the lives of nations and of individual men.

Obviously such a spiritualistic interpretation of history will never be acceptable to a non-spiritualistic mentality. The Problem of evil, of suffering, jars upon the sensibility of some to such an extent that they become cynics. To speak of Providence to such men seems childish and naïf.

There is no denying that in many cases our very limited intelligences are incapable of grasping the meaning of such and such a social catastrophe. We do not see in such and such a concrete case, why Providence allows this or that evil or suffering. Yet experience has taught us that even wars can have in the long run a beneficial result. Could certain military heroes and certain martyrs have existed without war and persecution? And even sin, repented and expiated, can be the occasion of many a virtuous act. The repentance of St. Augustine has been the origin of his most beautiful pages and his deepest meditations.

All this merely shows that such a spiritualistic attitude is meritorious. A man has to overcome his emotional reactions in order to apply his spiritualistic philosophy to individual human acts or historical happenings. That he does so is not merely a proof of his faith but also of his intellectual humility and balanced mind.

In summary, the psychological functions of history are:

(a) to teach certain fundamental laws of human nature; (b) to present great and inspiring ethical ideals; (c) to give a concrete ideal of Divine Providence: the plastic living harmony of God's own Divine thought in the world.

(E) THE PSYCHOLOGICAL FUNCTION OF SCIENCE

The first and most obvious effect of a scientific training is the acquisition of a skill necessary in the exercise of a career. Physics and chemistry will train the engineer, biology, anatomy and physiology, the doctor; mathematics, the astronomer.

Here again, the humanist will not rest content with these results, important as they are. He wants something for his higher nature and for his personality as a *man*. He wants to be a better man and a more beautiful personality, precisely because he has studied those sciences.

The first and most fundamental virtue of the positive scientist is a certain loyalty to the object. Not that there is no scope for this virtue in literature and in history. It can also be acquired there, but in a different way. In art, the creative urge is necessary, and in history there remains inevitably a large margin for interpretation. However, this loyalty to the object can also be acquired in art, by being true to one's inspiration and in general to the arch-types of nature; and in history by not tampering with the evidence and not injecting into the data, views, opinions and theses which are not warranted by the facts. But in positive science, this loyalty to the object has a special character. The scientist must be, above all, an observer. He must see, and then tell no more and no less than what he sees. He is not asked to create, to interpret. He is expected to

open his eyes and see and state. Who can doubt but that the practice of this method must in the long run give to the positive scientist an objectivity, an honesty, a veracity which ennobles him and beautifies his whole nature?

In opposition to this veracity and objectivity stands another tendency of the human mind: the tendency to unify. Men cannot start any sort of investigation without making some presupposition and without having some sort of theory. This theory, or presupposition, serves as a sort of pigeon-hole which unifies their data. It happens, however, that in order to unify better they start twisting the facts to fit the size of their pigeon-holes or categories. Thus, instead of analyzing human phenomena at their different levels, impartially and serenely, behaviorists start off with the mechanical principle of stimulus-response and then proceed to interpret the whole of existence in this childish manner.

The problem of objectivity, therefore, is not at all easy. There is nothing more difficult than "seeing". It is much more easy to invent, to decorate, to employ the imagination. That is precisely the great lesson and the great moral value which is to be learned in science: the habit of perfect, impartial honesty; the ideal of truth and perfect loyalty to the object.

But veracity is not the only ideal to be acquired in science. There is the ideal of "harmony". From the time of Democritus to our own day it has been the fashion in certain quarters to deny that there is any finality, order or harmony in the world. This denial however is somewhat ludicrous, since all sciences work under the presupposition that there are scientific laws and that they are

to be discovered. What are scientific laws but the latent harmonies of nature? The fact is that, whether they want it or not, scientists do see order in this world, and in all their scientific books they do nothing else than describe that order. Can anyone deny that the study of the human eye, the analysis of the molecule and the atom present us with an admirable order and a wonderful design? On a larger scale, the same lesson of harmony can be learned in astronomy. Science, then, is the harmony of nature deduced from a scientific study of that same nature and expressing itself in the abstract patterns of the mind.

There is nothing more inspiring, or more religious, than the study of science, when it is carried on in an atmosphere of objectivity and truth. The same subtle beauty which marks literature and history appears here in simpler and more intelligible lines. The infinite complexity of human lives, their passions, sins and divine aspirations, are absent. Nature is cold and impersonal. But there is, notwithstanding, in her objectivity a wonderful beauty and a harmony which is the reflection of the divine.

(F) THE PSYCHOLOGICAL FUNCTION OF PHILOSOPHY

Science, we have seen, harmonizes. But each science is a different unity. Physics and chemistry try to work out the fundamental unifying patterns of inert matter. Biology attempts to fix the unity of unconscious life. Anatomy and physiology look for the oneness of the human organism, of its parts and their mutual relations. Psychology tries to discover the laws of the conscious mind.

We have, then, a series of unities or harmonies. Are they to lie loose and unrelated in our minds? It is the duty of philosophy to unify them; to build them up into a higher form of unity.

For a pragmatist, the practical use of philosophy is that it co-ordinates ideas: a thing most necessary in life. A pathologist might add that this co-ordination could be a means of avoiding "dissociation" and, in moments of psychic stress, a "split personality". Further, philosophy can teach one to distinguish the essential from the accidental in any basic question. All that is perfectly true. Such objectives are highly commendable. But philosophy can give to the philosopher much more than that. It is here that the contemplative habit and the synthetic attitude of mind can be best acquired. Not that philosophy is exclusively synthetic or science exclusively analytic. No science is exclusively the one or the other. But if, in positive science, the accent is laid upon the analytic process, in philosophy it rests upon the synthesis. Both methods respond to legitimate tendencies of man's mind. They are not contradictory but complementary. In a really cultured mind, both must be present.

In a world of frantic activity like ours, it is highly necessary to commend this beautiful attribute of the mind. It is true that action fecundates man's thought; but it is also true that action must be guided. Action alone wears any mind threadbare; routine conquers, and the vitality of the ideal, which is nourished by contemplation, decreases. Ultimately, this weakening of the ideal reacts on the action and gradually nullifies it. When people do not meditate they know not where they are going; nor

do they care much. If they move in the field of science, the practical consequences are the following: all critical spirit disappears: things are taken on hearsay: problems are not probed to their depths and consequently science suffers. It is, therefore, of the greatest importance that students be taught this contemplative attitude: this habit of sitting back and co-ordinating and unifying. The facts are there, but what do these facts mean? What do they imply? Are they in harmony? And if not, why? This contemplative attitude, which is ultimately the healthy digestion of a mind desiring to harmonize its facts, is consequently most necessary, and it is mainly in philosophy that it can be acquired.

But that is not all. It is in philosophy that the ideal beauty and harmony of the universe can be seen best. After long years of study, when a man has had opportunity of studying the harmony of man's spirit in literature, the harmony of Providence in history, the harmony of nature in science and the harmony of the universe in philosophy, his heart will indeed burn with the love of that harmony. And he will be disposed to contemplate it in Him who is the Engineer, the Artist, the Poet and the Father of the Universe.

(G) THE PSYCHOLOGICAL FUNCTION OF RELIGION

Men have not been slow to recognize the utility of religion as a study course and its immense social value. From a utilitarian standpoint, which is by no means to be despised, but, on the contrary, highly commended, religion gives a supreme purpose to our lives and provides us with a complete system of unchanging moral values, which are

THE PRINCIPAL STUDY COURSES 159

of the greatest importance as "guiding lights", as "stabilizers" and as "motive-forces" of life.

But for a humanist, religion will always do much more than that. The scientific study of religion will be "the crown of all human learning", the mirror in whose crystal surface he can contemplate all multiplicity transformed into a oneness; the infinite complexity of the universe reduced to the tender beautiful simplicity of a flower.

Moreover, without God, the world is chaos. To use Plato's metaphor, without the sun, the eye cannot see. Without God, the universe is not intelligible. He is the Supreme Meaning, the Supreme Cause, the Supreme Arch-type, the Supreme Harmony, from whom all created harmony flows. When the ultimate principle of all unity is taken away, what can remain but anarchy and dissolution? The strong religious spirit of great human cultures (Greece, Rome, the Middle Ages)¹⁵ and, on the other hand, the gradual disintegration of societies where the religious spirit is on the wane, afford a striking historical confirmation of the above claims.

Given, then, that all created things are merely the reflection of the Uncreated Being, it will be readily seen that all scientific study is merely a preparation for the study of religion. It is only when a man knows fully and accurately the nature of the universe that he can probe with his natural reason, in a scientific way, into the nature of the Supreme Good, of whom all reality is a mere reflection. Who can judge an engineer if he has not seen his work? The same can be said of the Creator. He built,

¹⁵ Christopher Dawson: *Enquiries into Religion and Culture*, London, 1933.

indeed, a wonderful house for man and he furnished it most admirably. It is from the nature of this universe, his home, that man must deduce the genius of its Architect.

It follows that, ultimately, the function of each study course can only be fully understood in the light of that crowning achievement of all science: the contemplation of all created harmony as a reflection of the Divine. It can be said, consequently, that each study course is a preparation for religious instruction and that, implicitly, in each study-course religion is being taught. This is a sublime and most fruitful concept of religious teaching and consecrates each subject with a divine dignity and sanctity. Thus the teaching of religion is not merely assigned a period a week (like any other subject), but is the soul which permeates all study and the light in which every morsel of reality is examined. For in all things one seeks a better and clearer knowledge of Him whose reflection is traced in all science and whose beauty is ever sought in order to love Him more and more.

Of course, this does not mean that no definite time in the week should be assigned to religious instruction. Given the existence of a revealed religion, the content of that revelation must be taught as a separate subject and cannot be deduced only from the study of other sciences. But the fundamental principle remains true: each study course must be so studied that it leads to a better knowledge and to a deeper love of the Creator.

If religious instruction is not a mere "period" each week, but a real and all-pervading spirit which compenetrates each subject taught and studied; if each class is an implicit

preparation for the ultimate synthesis which a religious instruction will give; then it is perfectly obvious that no real religious training can be given in institutions where, even if some religion is taught, each class or some classes are an implicit or explicit denial of God, because they are given by materialists or pantheists who live in the chaotic world of godlessness.¹⁶ Such a method is, for the ordinary student, an occasion for mental conflicts of the gravest kind. It is a disintegration of knowledge; and disintegration, whether in the moral, intellectual or material sphere, is not very far from putrefaction.

From the fact that religion is the supreme integration of all science, another most important conclusion must be drawn: religious instruction can never cease. In a very real sense, each new step in knowledge is an implicit step forward in religious knowledge also. Since all created reality is a reflection of the Divinity, each new fact must also be examined under this light, and it must be seen how it stands in regard to that supreme synthesis. Hence the grave danger for those students who, with an elementary knowledge of religion, embark on any scientific career. Very elementary knowledge of religion is a poor

¹⁶ Pope Pius XI: "Encyclical on the Christian Education of Youth", *The Catholic Mind*, Vol. XXVIII, p. 86: "For the mere fact that a school gives some religious instruction (often extremely stinted) does not bring it into accord with the rights of the Church and the Christian family or make it a fit place for Catholic students. To be this it is necessary that all the teaching and the whole organization of the school and its teachers, syllabus and text-books in every branch, be regulated by the Christian spirit under the direction and maternal supervision of the Church; so that Religion may be in very truth the foundation and crown of the youth's entire training; and this in every degree of school, not only the elementary, but the intermediate and the higher institutions of learning as well. . . ."

basis for any integration. The principles remain too vague, too confused and abstract. A young man, for example, on learning in the medical school that the human body contains electricity and is in a sense a sort of electrical battery, concludes that this is an argument against spiritualism and consequently against all religion. If he had known a little more about the relations between the human soul and body, he would not have had such primitive difficulties as these.

It follows that, from an educational standpoint, the function of religious training is to integrate all knowledge and to give to all science and life its ultimate meaning and, consequently, its dynamism. Without it, all human wisdom remains cold, the universe is atomized and transformed into a heap of worthless fragments and our own minds go through the same process. A godless mind is a divided mind, disintegrated and weak. Nor does this disintegration stop at the individual. As Plato so well saw, it spreads fatally to the whole body politic. For it is not matter or instinct which unites men, but spiritual ideals, capable of controlling selfishness and creating harmony in the otherwise confused body of humanity.

"Ideas shape civilizations. Change the idea and the order will change. Replace ideas by chimeras, and the order will dissolve. We may choose as we please, but we cannot escape the consequences of our choosing. We are free to re-enact what Babbitt calls all the pagan stupidities; but, if we do, as he reminds us, we cannot escape the pagan doom. The shifting sands of 'the many' are strewn with the ruins of the kingdoms of men. Humanism, in warning us to recover the sense of the abiding 'one', but reasserts on the basis of

human experience, the Christian injunction to seek first the Kingdom of God."¹⁷

(2) EDUCATIONAL CONCLUSIONS AND APPLICATIONS

(A) ABSURDITY OF THE "ELECTIVE SYSTEM"

From the above analysis of the psychological function of the principal study courses, it will be seen then that a system of studies is not "a heap" of subject matters, thrown into the basket of a catalogue in order that people may pick up just what they want, but an organism. Each study course has, beyond its practical uses, a definite and necessary influence on the mind. Consequently, a really humane culture postulates, not one or two, but all these study subjects at least to some degree. Only thus will a mind be integrated. This is not a plea for encyclopaedic knowledge. It is difficult to co-ordinate all these studies into the short span of life which is given over to study. Nevertheless, it remains true that all these elements have some specific value and method to contribute and that they cannot be substituted, the one for the other. In some degree they all must enter into the training of the human mind.

It follows, obviously, that the educator must know the

¹⁷ Louis, J. A. Mercier: *The Challenge of Humanism*, N.Y. 1933, p. 270. Note besides the following by Hegel: "The training of the mind consists ultimately in the reduction of all experience into the oneness of a universal idea, which shall be at the same time understood and loved." (*Philosophy of Law*, paragraph 72.) In spite of the monist subjectivism of Hegel's philosophy there is in this formula, as, in general, in all the formulae of this genus, a tremendous depth of meaning. Hegel saw very clearly that there can be no real training where there is no integration.

psychological influence of each study course, just as the painter knows the possibilities of each color. Only thus will he obtain the psychological profile which he desires. To put all the study subjects on a plane of equality is to be color-blind. Hence the utter absurdity of the "elective" system. Were a plan of courses "a heap" and the mind of man "a bundle", then indeed would the elective system be justified. For the different courses would be like peanuts in a bag. Obviously it makes no difference which peanuts one eats and in what order.

(B) ADAPTATION OF A HUMANE TRAINING TO THE
BIOLOGICAL DEVELOPMENT OF MAN

As has been shown, this humane plan of studies is well adapted to the organic development of man. The early years, which are those of predominant sensitive and emotional life are given over to art. Maturity, when the power to abstract is fully developed, is consecrated to science and to philosophy. Note that philosophy follows science. One cannot philosophize on nothing, or on words alone, at least if one is not a nominalist.

(C) SPORT

A really humane education can never dispense with sport. The harmony which has been seen and loved concretely and in the abstract, analytically and synthetically in the different subjects, must also be trained into the limbs. Sport may have a practical aim in "gate-money". But for a humanist that can never be the principal aim. The humanist sees in sport a means of learning how to control and organize his movements. It is ultimately the triumph of

reason over the limbs and the concrete manifestation of harmony in bodily movements.

Moreover, courage can only be acquired by overcoming the fear which one feels in danger, and sport affords numberless opportunities where minor dangers may be encountered and pluck developed. It is, further, a school of sociability and co-operation. These ethical values make sport a most necessary instrument of humane training.

(D) THE IDEAL OF HARMONY

It will be seen, from the above analysis of the psychological influence which the different study courses exert on a man when he is properly taught, that the humane system of education presupposes a sort of ascension of the mind from the concrete to the abstract; from the real to the ideal; from art to science, from science to philosophy, from philosophy to religion; from the infinitely varied and multiple to the "one". In each level of reality the mind discovers the same fundamental pattern of harmony, which is simply the seal of the Divine Reason.

Education, then, is not a series of leaps from one watertight compartment to the other; from one dreary prisoner's cell to the next. Education is a growth and an integration by means of an ever-recurring living contact with that "splendourous order", which is the seal of the Divine Reason. This integration is not realized "fatally" or "mechanically", but by dint of personal and austere effort, urged on by that "eros" which is nothing else than the passionate love of the true, the good and the beautiful. This growth is really an adaptation. Not, indeed, a partial one, to the purely material world, as the utilitarian materialists would have

it; but an integral adaptation to the totality of the universe, past and present; material and spiritual; natural, human and divine.

Harmony seen, heard, felt and loved in art; harmony penetrated and abstracted in science; harmony assimilated in philosophy; harmony contemplated, loved and adored in religion: that is the whole scheme of a humane education.

II. THE LATIN AND GREEK CLASSICS

*"Ah, Ce sont ces morts là
qui m'ont appris
à regarder les vivants marcher."*¹

—Paul Claudel, *Le Soulier de Satin*.

(I) THE PSYCHOLOGY OF MIND TRAINING

(A) THE MEANING OF HUMANISM

It is not the contention here that a humane education is essentially linked up to a classical training, so that only a man trained in the classics can be really humane. Far from it. As pointed out in the last chapter, humanism is not a question of study subjects, but of attitude and of method in learning and in teaching. There is such a thing as a scientific humanism, and students of folklore have discovered, with some surprise to themselves and to others, that there is also a peasant humanism. There is some truth in the saying attributed to Salvador de Madariaga that there are peasants in the plains of Castille who speak like Cervantes and think like Plato. Those who have been in contact with the rural population of countries in which a Christian tradition has given to workers and peasants the sense of their dignity and their value, have met again and again men who, having little erudition in any abstract field,

¹ It is the dead who have made me aware of the martial tread of the living.

possess nevertheless a keen sense of honor and justice while showing an excellent practical knowledge of their own affairs. Further, they often have a great sense of natural beauty, speak correctly and sometimes in a most picturesque language; and they can dance, make verse and sing with humor and with grace. To cite but one example, there is no finer monument of this peasant humanism than the popular songs and romances of Spain. These are anonymous and traditional poems which are handed on from one generation to the other and embody the wisdom of the nation, its moral ideals and its customs.

The contrast is painful between this popular humanism and those merely industrial societies, in which man has ceased to be an absolute value loved for his own sake, and has become a mere tool for the advancement of industry. In those nations in which the cult of material progress is the national religion, in which the lives of millions are sacrificed to the greatness of just a few, one has seen the rising of a strange generation, incapable of creative activity, stunted in imagination and wit, soured and cynical. Such unhappy men, strange to say, have often an absolutely unbounded faith in machines, but they have lost the sense of spiritual values. They are no longer humane.

Humanism, then, is not necessarily the product of a classical training. Humanism can be learned in the Gospel, that most human of all documents, no less than in Plato. It can also be learned in the literature of any great nation, since it is in literature that man has stamped the seal of his dual nature (spiritual and animal). But the school of humanism excellent above all others is the classical school.

It is the aim of the present chapter to analyze the psychological function of the classics in the light of modern experimental research and to show why they are the most excellent instruments of a humane education.

(B) THE PROBLEM OF CLASSICAL TRAINING

The educational value of the classics was never a serious problem as long as Latin remained the international language of an international science. But the Protestant Reformation broke up the spiritual unity of Europe, and, with the rise of nationalism and the gradual development of highly complex national languages, little by little Latin ceased to be the recognized and necessary medium of expression of scientific thought. Towards the end of the eighteenth century Kant published his *Critique of Pure Reason* and it was written not in Latin, but in German. Thereafter, Latin was no longer necessary for the understanding of philosophical texts. The nineteenth century, with its enormous development of positive science in the universities, made it still more obvious that Latin was coming to be a "dead language". And then, naturally, people began asking themselves: "If Latin is a dead language, why go on studying Latin?" Many of them, educators included, refused to answer that question, and Latin was allowed to die in many schools.

The most general, though not the only, answer which has been given to this still urgent and important question has been that Latin must be taught because Latin trains the mind, because it educates. And immediately a new question arises: what exactly is mind-training and how does

Latin train the mind? It is, then, quite clear that the question of classical education presupposes a very important and not less difficult psychological problem.²

(c) THE PROBLEM OF TRANSFER

Such expressions as "educational value", "mind-training", "mind-development", "brain gymnastics", "mental energy", etc., are very vague and somewhat captious. Everybody uses them but few know what their exact meaning is. Many persons seem to believe that intelligence training is somewhat like training a muscle. Once the legs have been strengthened, say, by playing football, that strength of muscle can be applied to anything and everything, driving a heavy truck or unloading a freighter. The muscle energy acquired in one specific form of activity functions equally well in any other field. The same with the mind, mental strength is obtained in one scientific field, say Latin, and works equally well in all other fields: engineering, banking, and so on. The same conception is applied to the moral sphere. If a boy has learned to obey his parents in the home, he will have also learned to respect his schoolmaster, his Sunday-

²For many years both friends and foes of classical learning have been asking psychologists to provide them with arms. With this end in view, the psychology of mind training has been studied again and again, and more or less successfully, with experimental methods. The results of these experimental studies may not have taught or uncovered much that is essentially new; but they have certainly given us a much more accurate knowledge of the concrete meaning and practical possibilities of formal mind-training. The really great educational thinkers, men like Plato, Aristotle, Quintilian and St. Thomas, have held a theory of formal training which is in no way different, at least fundamentally, from that which has been put forward by modern experimental workers. Theirs is not the rather primitive and most shallow conception of transfer which men, who probably never have read them, give them credit for.

school teacher, his trainer, etc. All that is very well, but is it really true that such "a wholesale transfer of training" takes place? Does our normal experience support this conception? To put it as briefly as possible: What is this mental energy? How is it acquired? How is it developed? And when it is developed, is it specific or general?

These are most important questions; and here are the answers which experimental psychology can actually give.

Mental training means assimilation of ideals, or methods, or both. A man may go to Oxford, for example, learn a great many things, and later, on taking up a profession, forget about eighty per cent of what he had learned. But, besides that small residue of factual knowledge, something else would remain: certain fundamental interests, certain ideals, certain critical ways of looking at things, a whole series of mental habits and attitudes which he did not have before going to the University. The acquisition of certain most valuable ideals and methods does not mean, however, that the initial, inborn capacity of his intelligence has been raised. What modern psychologists call his "general intelligence" does not depend on what a man studies; that is a matter of inheritance. No amount of Latin will change a dullard into a bright boy, or a bright boy into a genius. As Plato expressed it so beautifully in his *Republic* (and the same idea is in Aristotle and St. Thomas), men are from birth either of gold, or of silver, or of a baser metal. Their inborn capacities are different. And the old Spanish proverb says the same: "Quod Deus non dat, Salamanca non praestat", "If God did not make you a genius, neither will the University of Salamanca".

If the ideals or methods imparted are specific, the habit acquired will also be specific; if they are general, the habits also will be general. If a man, for example, has learned to work and judge in the field of physics, he has not, therefore, learned to work or judge in the field of sociology. Yet, some fundamental principles of procedure, such as that of applying controls to experiments, might be capable of generalization and adaptation. These could be transferred. Further, a certain ideal of scientific accuracy and honesty might also be generalized and carried over from experimental physics to a sociological field.

The amount of transfer is in direct proportion to the degree of intelligence possessed and the method of teaching. A powerful intellect is capable of seeing many relations, unifying his knowledge more and, therefore, making much more transfer. That has been shown in an experiment by Overman.³ What Overman probably did not know is that he was restating St. Thomas's thesis on the synthetical power of "genius". The very intimate connection between method of teaching and amount of transfer has also been proved by numerous experiments.⁴ In fact, it has been shown that the amount of transfer can be multiplied by five or six if the method is changed. That is what one would expect. Narrow views and sheer mechanical drill coop up the mind. Breadth of intelligence and a capacity for linking up and unifying all knowledge must effect much more transfer from one field to another.

³ J. R. Overman: *An Experimental Study of Certain Factors Affecting Transfer of Training in Arithmetic*, Baltimore, 1931.

⁴ See the summary of these experiments in my *Geistesformung*.

The experiments of Dr. Knight Dunlap have shown that in humans mere repetition of acts is not sufficient to create a habit.⁵ In fact, this external repetition can very well produce an inward attitude contrary to that which it is meant to create. A small boy, for example, who likes to bite his nails, can be cured of it if he is forced to bite them against his will at definite intervals. In such cases the external action becomes an occasion for producing a strong sentiment of dislike towards that which he is obliged to do. This fact as such is not new to anyone; what is new is the strongly subconscious nature of such processes. These experiments are illuminating rather because they seem to show that the very essence of habit formation in man is not mere repetition, but assimilation of intellectual or moral values.

Mere drill, then, without a purpose, drill which lacks "a desired end" in view, is not sufficient to produce a habit. On the other hand, verbal motivation, imparting of ideals without some sort of drill in the practical realization of these ideals, is also incapable of forming a habit.⁶

In the irrational sphere of man's nature, sentiments have a method of transfer of their own. It has been proved (by Freud, Shand, McDougall and others) that a sentiment, say, of fear, which is originally fixed on an object A, slides over very easily to any other objects, A₁, A₂, A₃, which resemble the original object A. Take the case of a man, Peter, who has acquired a strong dislike to a man called

⁵ Knight Dunlap: *Habits: Their Making and Unmaking*, New York, 1932.

⁶ I. B. Saxby: "Some Conditions Affecting the Growth and Permanence of Desire", *British Journal of Psychology*, 1917-19.

John because John has done him grave injury. Many years later he comes across another man, Paul, who resembles in features or in tone of voice his old enemy, John. It is almost certain that he will instantly feel a strong dislike towards Paul, even without being conscious of the reason why he is disliking him. This kind of transfer is almost entirely subconscious, but it works itself out most subtly and tenaciously into the whole of our lives. Men are not as rational as they think. Not only their behavior, but also their thinking, is very strongly influenced by these subconscious likes and dislikes which are called attitudes. Constant and exclusive contact with matter and with the material quantitative aspect of things seems to create a subconscious leaning towards interpreting science and life rather from the material than from the formal and spiritualistic side.⁷

Sentiments are the driving power in man's nature. What the imagination is to the abstract intelligence (a necessary prop), sentiment is to the will. Generally speaking, any ideas which have not been linked up with strong sentiments remain inefficacious. Hence the enormous importance of ideals. An ideal is simply an idea which has been linked up with a series of concepts, images and sentiments; an ideal means practically a force. Rooted deeply in the "apperceptive mass", it works as a powerful psychological unity, drives a man to action and can become the dominant element in his life. Ideals, then, are intimately related to sentiments.

⁷ My own experiments on the mental attitudes corresponding to the type of study a boy does (purely scientific or purely literary) seem to show this. See J. Castiello: *Geistesformung*, Berlin, 1934.

(2) THE PSYCHOLOGY OF MIND TRAINING
APPLIED TO THE CLASSICS

(A) WHAT ARE THE CLASSICS?

Training means, it has been pointed out, that beyond the bare scientific or literary fact, the mind assimilates with and through these facts certain definite ideas, methods and sentiments. This rational assimilation of knowledge, this spiritualization of raw scientific material, is the very essence of mental training. When the assimilation of knowledge is purely material and mechanical, when it is mere memorization, very little or no training takes place. If these, then, are the conclusions drawn from the experimental data, how are they to be applied to the classics?

First of all, what are the classics? In practice this word is used in many different senses. It can be taken to mean the study of Latin and Greek grammar, because an enormous percentage of the persons who study the classics never get beyond the grammatical stage. Yet we say of them that they have had classical training. It can also mean the study of the Latin and Greek poets, orators and historians, considered as masters of style. In another sense, the classics are taken to mean the writings of the Latin and Greek philosophers. Finally, in a vaster, and truer sense, the word embraces Latin and Greek culture as a whole. It is evident that the ideals, methods and sentiments derived from a study of the classics are very different according to the sense given to that word. According as we take them to mean "grammar", "poetry and literary style", "philosophy", or "culture", the educational value of the classics will be essentially different.

(B) THE DOCTRINE OF TRANSFER APPLIED TO
CLASSICAL STUDIES

In applying the psychological formula of training to the point under discussion, the approach might be made by pointing out the values and methods which can be derived from the four different conceptions of the word *classics*. It might be pointed out that, since grammar is concrete, crystallized thought, an accurate knowledge of grammar might be a very good training in concrete logic. Comparison is necessary to the human intellect; black is always seen better on white; in fact, it is almost impossible to understand anything well unless it is compared with something else. It might, therefore, be deduced from this that it is a great advantage to have one's own grammar compared with another grammatical structure and that, consequently, any real comprehension of the mother tongue can only be gained by studying a foreign language. This should not be French or German, because during the early years at least there might follow the temptation to "Gallicize" or "Germanize" the native language. But there is no practical danger of Latinizing one's own speech, since it is already derived to a great extent, from the Latin. It might be shown how the fundamental ideal which underlies the study of grammar is simply that of adequate expression, and how that ideal might be imparted if in teaching grammar care were taken to show this explicitly.

Passing to Latin and Greek literary writers, it might be pointed out how, from a vital contact, not with their words or phrases, but with their spirit, there might be acquired a more or less conscious desire to imitate their clearness,

their elegance, their perfect command of rhythm and plastic form. Observing that they are able to clothe their thoughts in just the amount of words necessary to a clear and beautiful expression, ideals and methods of literary style might be acquired which would be most formative.

Then the philosophers and thinkers of Greece and Rome might be approached: not only Aristotle or Plato, but all the great pre-Socratic minds; the great dramatic poets, Aeschylus, Sophocles, Euripides and Aristophanes; Homer himself, considered not as a mere sculptor of beautiful verse, but as a philosopher, a contemplative and an educator of men. It would not be difficult to show that a personal contact with the thought of such men would arouse a more or less conscious desire to be, as far as possible as they were: that is, intensely inquisitive and curious about all the things of this world; intensely hungry for knowledge; conscious of a certain inward poverty, which only a patient and protracted study would in some way mitigate, but never entirely satisfy. Thus, little by little, might be acquired that peculiar attitude of mind which drove men of Plato's intellectual temperament to see in all the material world simply the shadow of the spiritual. One might come to think that one is, after all, just a miserable prisoner, sitting in a dark cave somewhere in the underworld, seeing projected on the walls the mere shadows of things, waiting for that dawn of real life which comes to all wise men when they acquire the contemplative scientific spirit, and which for Christians means that, and more than that, since they know that they shall one day see Truth, Goodness and Beauty face-to-face.

Finally, taking the "classics" to mean not only grammar,

or letters, or philosophy, but the sum of all these things studied in their historical setting, it could be proved that a personal, intelligent study (one which might really show me how their problems are my problems, since human nature remains fundamentally the same), would supply very useful standards for the aesthetic, literary, social, and political life of this day. By virtue¹ of this "vicarious experience" might be attained the ability to judge better of human things. And judgment is the most precious of all precious attainments.

(C) THE DOCTRINE OF TRANSFER APPLIED TO THE
HISTORY OF CLASSICISM

That, then, would be one way of applying to the classics the conception of mind training already discussed; but this has the disadvantage of being very abstract. It is preferable to treat the question historically and concretely. Fortunately, the history of European culture offers many examples of these four different ways of studying the classics. A contact with these four different situations will give the concrete impression, the real historical intuition of the values and methods which are to be derived from classical training. Four historical periods which illustrate the four different conceptions of classicism are: the Middle Ages; the Renaissance; the eighteenth and nineteenth centuries in Germany; and modern times.

It is rather amusing, when one reads the satirical pamphlets of the Renaissance and the skits which the humanists wrote against the Schoolmen (for example, the *Litterae Obscurorum Virorum*), to see the intimate persuasion which those good men had, that they, the humanists, were the

first to come into contact with the Greek mind. It is obvious that this belief is absolutely false. The Middle Ages studied the classics quite as much or more than the Renaissance scholars did; but they studied them from a different angle. The men of the Middle Ages were interested in Greek thought and Greek philosophy; those of the Renaissance, in Greek style. The Middle Ages were just as much concerned with Latin grammar as the Renaissance; but their objective was different. They studied Latin grammar in order to get in touch with the Latin translations of Aristotle, which were then the textbooks of the Schools. The Renaissance students learned their grammar in order to write Latin verse and elegant Latin prose. The Middle Ages were very much interested in the classics, but not in the same aspect of the classics as the Renaissance.

What was the result of this mediaeval contact with the Greek mind? A wonderful philosophical fecundation of the whole of Western thought. Theology had to be harmonized with reason. The enormous effort which this supposed brought into the world a definite new school of philosophy, Scholasticism. The Western mind had come into contact with the philosophical ideals and methods of the classics and a philosophical renaissance had been realized. St. Thomas, and this was his great merit, understood that the problems of Greek philosophy were the eternal, unchanging problems of human life. He saw perfectly well that human nature in the Middle Ages was fundamentally the same as human nature in the time of Pericles, and he brought the whole weight of Greek speculation to bear on his problems, that is, on mediaeval questions. He studied

the past for the sake of the present; not the past for the sake of the past; not the past for the sake of mere erudition, which is always barren. This contact with the intellectual personality of Aristotle and, indirectly, with that of Plato, stimulated him, made him think, gave him new light and new creative force. That is one way of studying the classics.

Then a very curious and interesting phenomenon took place. The followers of St. Thomas, little by little, almost imperceptibly at first, began to get out of touch with the real, concrete, objective problems of philosophy as such. They began to lose contact with the living elements, the fundamental human conflicts, which are at the root of all philosophy. Logic, abstract formal logic, began to become the almost exclusive preoccupation of the Schoolmen. Not the object of mind, not reality, but the functioning of mind became the aim of their studies. So a barren nominalism displaced a real, human, living philosophy. Conceptualism, "distinguos", and "subdistinguos", mental agility, an abstract philosophical "style": in other words, mental form divorced from the mental content became the fashion. This fashion crushed Scholasticism for more than two centuries.

What followed had to happen. People grew tired of this intellectual juggling and got back to reality: not abstract, but concrete, spiritualized reality in the form of Greek poetry and Greek rhetoric, Greek architecture and Greek plastic art. In some cases, they did get as far as Latin and Greek culture taken as a whole. The result was Renaissance art and literature; later, baroque art, Latin and Greek prose of very different values. The contact had this time

been made with the artistic ideals and methods of classicism and the result had been an artistic revival.

Again the old phenomenon occurred. Men began to cultivate style for the sake of style, and a decadence immediately set in. Not Erasmus, nor Vives, nor the really great men of the Renaissance, but the lesser spirits, the "dii minores", lost contact with reality and wrote Latin verse and Latin prose for the sake of Latin verse and Latin prose. They fell in their turn into the same failing which had caused the mediaeval decadence, although in a different domain. And another crisis overcame them. The moment style is separated from thought, the result is barren verbalism. Who has not suffered real anguish, wading through those veritable swamps of hollow Latin verse and still hollower Latin prose written by the decadent court poets and orators of the Renaissance. It is extremely significant that Newman, master of style as he was, should have repudiated in most caustic and emphatic terms the divorce of thought from style, the cult of expression for its own sake.⁸

This whole point can be summarized by saying that the Renaissance, in its contact with the classics, sought above all Beauty; that this contact was most fruitful, in that it produced lovely Renaissance art; that the real geniuses of the Renaissance never separated style from content, but that many of their followers did; and that the consequence was a decadence in classical learning analogous to that which took place in the Middle Ages when philosophical form became divorced from the substance of thought.

⁸ See Newman's essay, "Literature", which is usually appended to the *Idea of a University*.

There is, moreover, another point, and a very important one, which must be taken into account in considering the formative value of the classics during the Renaissance. At the beginning of the sixteenth century the evolution of the European languages had gone so far that they were able, as a result of the infiltration of Latin grammar and concept, to express anything and everything. It was natural, then, that artists such as Garcilaso de la Vega in Spain (Dante had done the same for Italy much earlier), should have tried to translate the aesthetic ideals and procedures which they had learned in the classics into their own vernacular. In this way the classics served as an inspiration for men who aimed, not to write artificial Latin verse, but to create a national culture of their own, in their own vernacular. Corneille and Racine in France; Calderón, Lope, Quevedo, and Cervantes in Spain; Shakespeare, Sir Philip Sidney and others in England. But their efforts, for all their national and local coloring, were fundamentally classic, in the sense that half of their inspiration, directly or indirectly, came from the classics; the other half being due to the Bible, local folk-lore and personal genius. These artists never fell into the temptation of cultivating style for its own sake. They were too much in contact with one of the most vital sources of real inspiration: the national life of their own times.

Contact with Greek philosophy produced a philosophical revival; and aesthetic contact with the classics gave birth to an artistic Renaissance. In the eighteenth and nineteenth centuries, Germany aspired to assimilate not this or that portion of Greek literature, but the whole of Greek thought. Goethe, of course, is the perfect type of German artistic

genius who draws his inspiration from Greek art. Humboldt is the ideal of a man of harmonic literary and scientific training who has thoroughly imbibed the spirit of Greek Atticism. It is well known that Schelling and Hegel lived on Greek philosophy, not only Aristotelian and Platonic, but pre-Socratic. Hölderlin is the German exponent of the most perfect Atticism. It was, therefore, an intimate fusion of German genius with Greek culture as a whole which produced the German New Humanism.⁹

Germany, then, is a good example of what an integral contact with the whole of Greek culture can do for a nation. It is not the only one. Universities like Oxford and Cambridge are the homes of a great and noble culture. This is due, in a large measure, to the vital contact which the curricula of those universities have always had, not with this or that particular feature of Greek or Latin life, but with the whole of Greek and Latin genius: art, rhetoric, philosophy, politics, scientific ideals and their corresponding methods.

(D) THE SOCIAL SIGNIFICANCE OF THE CLASSICAL TRAINING

But here an obvious question must be dealt with. How far is it possible to give this integral sort of classical training? How many students will be capable of assimilating this type of classicism? Of course such an assimilation can never be realized by all those who study Latin and Greek; any more than a perfect assimilation of scientific thought can be realized by all those who study chemistry, higher

⁹ See Edward Spranger: *Wilhelm von Humboldt und die Humanitätsidee*, Leipzig, 1928.

mathematics or physics. "Quidquid recipitur, recipitur ad modum recipientis." It will always be a small minority which assimilates perfectly any science and is capable of developing it with some sort of creative effort. All scientific and cultural traditions are really like pyramids. At the base is the majority of men who study and derive comparatively little benefit from their studies. A smaller group assimilates more and derives greater benefit. And only a relatively small number, the apex, assimilates integrally, transforms, and creates. Yet without the base, we cannot have the top of the pyramid. The fact that only a few of those who study the classics derive full benefit from them, does not mean that the others gain nothing from such a study. Further, this is no argument against the classics as such, but against all scientific traditions. If there are to be a few eminent men in any scientific field, there must be a greater number studying that kind of work. This merely proves that science is not an individual but a social function. It is not the atomic individual who studies for himself; it is man, it is society as such which studies for the sake of its individuals. The whole problem thus resolves itself into the following question: do we or do we not want to have a classical tradition? If so, then the normal curve of distribution, that is, the always recurring pyramid of social endeavor, must be reckoned with.

For Catholics, a classical tradition is not a matter of luxury, but almost a necessity. If, for others, Latin is a dead language, for Catholics it can never be dead, for each can say to himself: *civis romanus sum*. If a Catholic loves his liturgy; if he realizes that its symbolism is capable of spiritualizing infinitely more than any classic; if he is

conscious of the artistic and literary treasures that it contains, then this motive alone ought to make him a staunch defender of the language of Rome. Besides a Catholic needs more than anything else that historical perspective which the classics alone can give. For no system of apologetics can be built up without a historical background. The Church, the Vatican Council has told us, is "*signum levatum in nationibus*". Where is this luminous placard of the supernatural to be seen if not in the history of the human spirit?

Of the three different historical conceptions of classical training, then, the complete cultural contact is the most fruitful. There is, however, a real moral danger, in drinking too deeply of the clear, golden wine of pagan classicism. This is not the danger of sensuality, but the deeper and subtler danger of rationalism. The finite naturalism, the fundamentally selfish attitude of men who always considered liberty and spiritualism to be the privilege of the few and made slavery into a sociological axiom, can very easily poison and has very often distorted the minds of brilliant youths. This, however, does not mean that classicism cannot be taught, but that it can only be taught by strong and intelligent Christians. It is the duty of Christian humanists to point out, not only the rationalistic, but also the wonderful mystical element in Greek philosophy. They must show the hopeless disparity between ideal and realization and reveal to their students the terrible moral ulcers which infected the private and social life of Greece. Above all it must be made perfectly clear that if Greek philosophers could lead very often a purely contemplative life, the Christian élite would sel-

dom be in a position to do the same, and never for purely selfish motives. The all-consuming fire of Christian charity will urge them out of their contemplation and plunge them into the stormy seas of apostolic life. With them contemplation must very often overflow into action. Greek philosophers could be a sort of social perfume, and perfume tends to evaporate in the air. The élite of Christianity must always be a ferment which transforms the whole social mass.

(E) THE PROBLEM OF CLASSICAL TRAINING IN
CONTEMPORARY TIMES

There remains now only one point to be studied. Have we any historical example of a nation or a period which asks from the classics a purely grammatical training? In principle, none; but in practice, many. The majority of students taking Latin and Greek in Belgium, France and England at the present time never get beyond a merely grammatical contact with the classics. Recent investigation into the state of classical studies in France has shown that the average level was a fairly competent knowledge of Latin and Greek grammar and nothing more. Looking facts squarely in the face, French educationalists have had to acknowledge that, as things are at present, the greater number of their students never get in touch with the spirit of classicism in its original sources. And they asked themselves if a purely grammatical training was worth the trouble of learning such difficult languages. They also became aware that boys who had no classical training whatever (for example, boys from the working classes who become interested in disseminating Catholic propaganda)

could sometimes express themselves with much more conviction and efficiency than those who had for years been studying Latin and Greek grammar. They had to acknowledge that the study of Latin grammar alone very often produced a rather abstract sort of mentality, with a leaning to nominalism, with a certain love of expression for its own sake and with a sad inability for getting into contact with reality.¹⁰

This earnest and objective view of things produced no reaction against Latin or Greek as such, but against the method prevailing in the teaching of Latin and Greek. The investigators concluded by pointing out the need of teaching Latin and Greek in such a way that the students would really be able to reach the living personalities of Latin and Greek life. They want the intellectual, aesthetic and moral values of classicisms; they want the methods which might be derived from the assimilation of such values. They are, therefore, determined to break through mere verbalism to the very soul of classicism. Not that a contact with classical grammar alone would be worthless from an educational standpoint; but they doubted whether the results, the values and the methods which can be acquired from a merely grammatical classicism, were worth so much trouble.

It has been shown, then, that if educating means the imparting of ideals and methods, the educational value of a classical training depends on the ideals and the methods derived from the classics. What ideals and what methods are obtained from a classical curriculum depend in turn on

¹⁰ These observations are excellently made in François Charnot, S.J.: *L'Humanisme et L'Human*, Editions Spès, 1934.

the way in which the classical authors are taught and assimilated. If one limits oneself to a grammatical study, one obtains grammatical values and methods; if one aspires to an artistic and philosophical contact with classicism, one will acquire their artistic and philosophical spirit. If one's ultimate aim is the acquisition of a classical culture as such, one will derive an integral benefit and will assimilate the whole range of values which are included in their culture: grammatical, literary, artistic, social and philosophical. One will live in the past for the sake of the present and will benefit by the total experience of the most gifted and harmonic of all races.

But whether grammar alone is taught, or style, or philosophy, or the whole of Latin and Greek culture, no ideals or methods at all will ever be imparted if the teaching is mechanical. Latin and Greek are not magical instruments which produce their effects independently of any human collaboration. The educational value of the classics (and of any other subject matter as well) depends to a very great extent on the personality which is teaching them. If the teacher can feel, love and communicate to others the spirit of his subject and the inherent methods and attitudes which can be derived from this spirit, then he will form and he will train. Otherwise, whether he teach theology or bacteriology, his teaching will be barren.

(F) THE PRINCIPLE OF SOCIAL CONTINUITY AS A FACTOR IN CLASSICAL TRAINING

Why do we look for these ideals and methods in Latin and Greek culture and not, for example, in French or German or Hindu literature? Why do we not seek

inspiration in Chinese or Egyptian personalities? Why must we tie ourselves to the Greek and Latin way of thinking, governing, making laws and creating beauty? Because, historically speaking, the European cultures are all derived from Latin and ultimately from Greek genius. It is the principle of continuity which keeps us in the classical tradition.¹¹

Professor Paulsen has put forward the more serious theses¹² that, because European cultures have already been saturated with Latin and Greek thought, it is no longer necessary, in order to obtain a classical training, to read the Latin and Greek classics. It is enough if each country lives on its own national classicism; all the more so, since the exigencies of modern science oblige us to overload our secondary-school programs with too many subjects. It is impossible, naturally, to deal with this real difficulty in a

¹¹ There is another question often put forward even by some friends of the classics: whether it is not the same, only much easier, to read the classics in good translations rather than in the difficult originals. Did not St. Thomas read Aristotle in Latin? This question can only be seriously put as regards the philosophical elements in the classics, where it is easier to abstract the form from the substance of thought. We know, however, that St. Thomas himself was always trying to get at the original version and that he felt the insecurity of all who have to rely on mere translations. But as regards literary works (all Plato included), one might as well ask if a painter can study the art of the Spanish masters in cheap prints, or a sculptor the masterpieces of Michelangelo in photographs. It cannot be sufficiently emphasized that the very essence of inspiration (and if education is not inspiration, it is nothing), consists in a vital contact with reality. And if a "translator" is called by the Italians a "traitor", it is simply because all translations, whether they will it or not, do dilute tremendously the aesthetic reality of the original work. Food substitutes, as the World War proved, are bad substitutes. They breed unhealthy children. And art substitutes are no better. If continuity must be established and maintained, then it must rest on reality and not on its shadow.

¹² Paulsen: *Geschichte des gelehrten Unterrichtes* (Leipzig), 1919.

short space. The answer, however, might be summarized thus. History has proved again and again that in all human things a loyalty to certain original principles of development is a guarantee, not only of stability and consistency, but of what one might call metaphysical health. In the political sphere this is quite obvious. Institutions which are always changing their constitution are doomed to chaos. They are like men without character, they are everything and they are nothing. The same is true of philosophy and science, art and literature. All things living grow, and cultural traditions, being the essential produce of the spirit, must necessarily develop. But growth means the assimilation of new elements: "*nova et vetera*". And so the questions arise immediately: Which is to be the principle of assimilation? Which the criterion of selection? How to know in practice what to take and what to reject? If elements which are essentially alien to one's nature are taken in, will not disruption follow? The answer is obvious. Tradition and only tradition can be that principle of assimilation. In Europe, at least, the very root of all cultural tradition lies in Greece and Rome. German, French, Italian, Spanish and English cultures are merely the branches of the same classical trunk. Cut off the trunk and not only will the spiritual bonds which give cohesion to the European civilization be disrupted but the root of each of those cultural traditions will be killed. The classics are to Western culture what the Bible always has been to Christianity: its principle of unity and the source of its inspiration.

It is, therefore, the principle of continuity which binds us to an undiluted, classical tradition; but if we probe

still deeper, we shall find that there is a still more powerful argument in favor of the classics. It is the ideal quality of Greek and Latin classicism, especially Greek, which constitutes the strongest plea in their favor. This ideal quality is the very essence of their spirit.

(G) THE SPIRIT OF CLASSICAL HUMANISM

It is because the Greek ideal of science and art and of life was "humane"; because the Greeks, with a peculiar instinct of their own, did not aspire to this or that specific type of beauty, or of art, or of style, or of law, but sought in all things that which is independent of time and space, and hence cannot be tied to this or that nation or historical period: that is the ultimate reason why we study the classics. If we read the weird, strange German tales of the Middle Ages, we admire, of course, their terrible, wild strength. But we say instinctively: "No, I could not be like that." But if we hear Demosthenes pleading the cause of real patriotism, we say: "Oh, yes! that was true then, and it is true now. Whenever noble men shall plead the cause of their native land, they will have to speak more or less like that." If we look at a Hindu statue with its six arms and its elephant's head, we may admire the strange craftsmanship with which it is executed. But never would we admit that we would like to be like that. If, on the contrary, we contemplate a statue by Phidias or Praxiteles, we tremble with joy and admiration and we say to ourselves: "Two thousand years ago, and today, and two thousand years hence, a beautiful man will always be like that." The reason, then for loving the classical type is because it is the ideal type; because it is the type which is

necessarily eternal and universal; because it is that which seems nearest to God's own conception of things. That is the meaning of humanism: ideal, spiritual, near and proximate to God's own thought. How true that is we shall see if we consider with what ease the thought of Greek ethics and Greek metaphysics was incorporated into Catholic morals and dogma as soon as the first days of anxiety and danger of relapse into paganism had gone by. Not because they were Greek, but because they were ideal, because they were humane, because they were spiritual, could they be taken over by God's own system of transcendental thought which we call Revelation. The same, of course, can be said of the Roman juridical system, which is the very backbone of Canon Law.

(H) THE HUMANE ATTITUDE, THE HIGHEST PREROGATIVE IN A CLASSICAL EDUCATION

In summary: A mediocre intellect cannot be turned into a genius by the mere fact that it assimilates more or less Latin or Greek. Intelligence does not react to training as do the muscles of the body; having been trained in one specific field of knowledge (Latin or Greek or both) the mind will not, therefore, be able to scale any intellectual peak. But by learning Greek and Latin, not in any way, but properly and intelligently, a man will have acquired certain definite ideals and methods which will be most useful to him in the study of other sciences and in many situations of life.

If a man has been in touch with the culture of Rome and Greece, if he has put himself in contact with the living personalities, not with the mere words and verbal ex-

pressions, of their intellectual, philosophical, artistic and political leaders, he will have admirable standards by which to judge in art, literature, law, social life, history and politics. He will have gathered to himself that which is best and purest (from a natural standpoint) in man. And if, besides all this, the classical student is humble; if the love of intellectual light has not killed in him the sense of the mystery and the aspiration after that which is beyond the merely rational formula; if he has learned from Plato to be scientifically humble, hungry, thirsty, always hungry and thirsty for more and more truth; if he is convinced that the man of science is always ultimately a beggar whose duty it is to reconstruct painfully, slowly, at great costs to himself, one little fraction of the Divine thought; if a man realize all this, then there shall have been produced not merely a classical scholar and a man of culture, but a spirit which is eminently capable of assimilating Divine Grace.

A true conception of the true nature of man is always a necessary preliminary of faith. In other words, in order to be a Christian, one must first be a man. The Soviets knew that only too well when, in order to de-Christianize Russian boys, they cut them off from anything which savored of tradition and proceeded to mechanize them. Obviously a machine can never be a Christian. But, because youth should be Christianized, they first must be made human, made spiritual. And an intimate contact with the classical culture, when carried out under Christian auspices, does give a true, inward, almost experimental knowledge of that which is spiritual: something which can never be reduced to time, space, weight or number; something which

is essentially fluid, moving, plastic, rich and capable of holding in itself the whole of creation: a *micro-cosmos*; something which in its immense, opulent, interior life is yet immensely lonely, poor and ardently thirsty for God. "Inquietum est cor nostrum, donec requiescat in Te." Here Plato and St. Augustine are at one.

PART III

THE IDEAL OF
PERSONALITY

THE IDEAL OF PERSONALITY

*"The greatest and most authentic book on personality is the Bible, and the discoveries which psychologists have made tend to confirm rather than contradict the codification of personality found there. Psychology differs from all other sciences in this important respect. Whereas the other sciences have taught us that our previous ideas and beliefs about nature were wrong, psychology is proving that many of the ancient ideas and precepts about the development of a good character and personality are right". — Henry C. Link, *The Return to Religion*.¹*

(1) THE NATURE OF PERSONALITY

EDUCATION was defined in the introduction to this book as the transformation of the raw stuff of human nature into the rich harmonic unity of a personality. Subsequent chapters have proved that this definition was not arbitrarily assumed but deduced from reality. An empirical analysis was made of man's characteristic tendencies: thought, creative power and the self-making activity. These tendencies were studied experimentally in their concrete psychological setting, rooted as they are in the subconsciousness, propped up by the life of the senses and the imagination and urged on by the instincts and the emotions of which they are not the slaves but the masters.

¹Dr. Henry C. Link is the director of the Psychological Service Center of New York.

Man's rational nature was shown to be a non-material urge which has as its object: the meaning of things in science, form in art, and in the moral sphere, righteousness. In science it assimilates, in art it gives and in the sphere of righteousness it transforms human nature into an organic unity; but in all domains whether of science, art or morality, its activity is such as to show an essential difference from the instincts and the emotions of animals. Animal urges are fixed exclusively to the material stimuli of food and sex. Man's rational nature on the contrary is fixed to meaning, form and goodness, to the universal idea by whose means it controls material phenomena in science, condenses experience in art and unifies behavior in the field of morality. In all fields, whether of science, art or morality, it has been seen again and again how the tendency of the human mind is always towards unity and hierarchical control of the purely animal by that which we call reason.

From the nature of man's inborn urges educational conclusions were drawn and their practical applications were indicated. Further it was shown how the principal study courses might influence man's mind and in what precise way these courses ought to be organized and taught in order to produce a harmonic integration and a complete adaptation of man to his material and spiritual environment.

Personality or the integration of man's nature is the educational ideal of this book. But so far it has been treated almost exclusively from a psychological standpoint. Its element of unity, of self-possession, of being "sui-juris" and not subservient to any tyranny, whether

of man or nature or animal instinct, has been emphasized above all others. Naturally, because this self possession is the characteristically human element in education. It is in virtue of his reason that man is able to possess himself in a much fuller way than any inert thing or animal could ever do.

Intimately linked up with this conception is the common idea which men have of personality, and which might be termed its social aspect. Whenever a man has something especially unique about him that makes him stand out and exert a strong influence on others, he is instantly termed a personality. Looking a little closer into the characteristics of such persons, this influence is largely found to be due to a collection of traits, which are either purely intellectual (as in great thinkers), or aesthetic (as in creative artists), or moral (as in men of great unselfishness and social sense), or to a combination of these qualities. These traits must not remain locked up in themselves and barren, but must have a diffusive character, in virtue of which they irradiate upon others and exert a social influence.

If, in the matter of "personality", the psychological viewpoint stresses the character of self-possession, which is really based on man's rational nature, the social standpoint stresses much more the irradiation of that rational nature, its contribution to the life of the community in terms of thought, beauty, heroism. It is mainly from this social standpoint that the ideal of personality is now going to be studied.

It is clear, then, that from a social standpoint a personality is constituted by the power to think, or to create or to love in so far as these irradiate on and leaven the life

of the community. That is why, amongst the eminent personalities of a nation or of the world's history, we find the great scientists, the great artists, the great social heroes, who served their country and humanity well. It is they who constitute the real world of aristocracy.

It is well to note, however, that persons do not need to possess the highest intelligence in order to be considered personalities. Sometimes men of ordinary talent give proof of heroic unselfishness in the service of their community or country. Nor are the characteristics of personality the exclusive monopoly of any race or social class. Greatness is not based upon any such accidental and extrinsic attribution as wealth or place of birth, but on the excellence of intrinsic human qualities.

That being so there remains the one fundamental question: amongst the thousands of great men who have lived and served God and society, which one should be chosen as an ideal and an inspiration? He must be someone who is at the same time a profound thinker and an artist and a hero. A Chinese would probably suggest Confucius; a Hindu, Buddha; a Persian, Zoroaster. A humanitarian rationalist would almost certainly pick Socrates. Because all these men were really great, much might be learned from a study of their personalities. However many Fathers of the Greek Church^{1a} hold that all real human greatness is but a partial reflection of God's ideal greatness and beauty. Because of this, someone else must be taken as an example besides Confucius or Buddha, Zoroaster or Socrates. For they are but part reflections of the Ideal.

^{1a} See Hermann Lange: *De Gratia*, St. Louis, 1932, p. 90.

(2) CHRIST, THE IDEAL OF CHRISTIANITY²

There is and has been only one Ideal Man in the history of humanity. One mysterious Man, dead two thousand years ago, who from the depths of His sepulchre goes on controlling millions of human lives, inspiring them, urging them on to ideals which contradict every kind of animal greed and cruelty, and exacting from them a renunciation

² It must be made perfectly clear that the term personality is being used in its social sense. The traditional definition of personality by Boethius, "*rationalis naturae individua substantia*" (that is, the uniqueness of a rational nature, its actual incommunicability and inherent oneness), includes the social aspect of personality in so far as it includes reason. But it implies, also, the deep metaphysical element of actual incommunicability. There are in Christ, according to revelation, two natures, the human and the divine; but only one divine person. This entire chapter is not concerned with the divine person of Christ, but with the excellency of His human nature which constitutes His social personality. The attempt is made to visualize this human nature as His contemporaries must have seen it, first of all, because it is the "filter" of His Divinity; secondly, because in an educational study, in which we are trying to learn and derive inspiration from Him, the human element appeals more to our own very human ways. As St. Augustine so beautifully remarks, it is His Humanity which is the stepping stone to His Divinity.

Modernism denied His Divinity. The consequence has been that Catholic authors have had to insist on His Divinity. But they have insisted so much, that some of them seem to have fallen into a sort of monophysitism. They carry things to such extremes that they neglect His human nature, quite as real as His divine. The personality of Christ (or rather His person) is divine. But His two natures do not cancel each other out. How the union is made, that is a mystery. But the fact is there.

The following comparison is illustrative. The Church is infallible. But yet she acts before a dogmatic definition just as if she were fallible. Real thinking is going on; real praying, in order to have light; real suffering and even martyrdom, for the sake of the truth to be defined. And all that is as real as if the Church were not infallible. All the labor, the research, the consultations go on, just as if the Pope were as fallible in his dogmatic definition, as Mr. Stanley Baldwin in his foreign policy.

In the case of Our Lord something similar happens. He is God but He

(sometimes carried into effect) of everything which they love: wealth, power, family, freedom and even life itself. This mysterious man whose entire life was foreshadowed in living symbol and prophecy, transfigured with the light of miracles and crowned with the blood of martyrdom; whose triumph was the victory of weakness over strength (because pure physical force is the real weakness and spiritual force is never weak); this mysterious man is Christ, the Son of the Father and His Ideal. He is the ideal man. It is in Him, therefore that what is specifically human in human nature should be studied: the quality of His human thought and the beauty of His creative words and the harmony of His moral activity.

(A) THE THREE BASIC ATTITUDES OF HUMAN THOUGHT

It is the specific quality of human thought that it unifies that which it touches. A rhesus monkey sees the black letters of a word; but it does not gather them up into a unity; it does not get at their meaning. Human thought gathers up heaps of letters into an idea, and heaps of ideas into a sentence and whole sentences into a book; and perhaps the whole content of a book will be con-

is also man in every way. He was really tempted and He really suffered and He really learned, and He was really despondent and discouraged and He really longed for human friendship. There is a horrible mental attitude which drives men to think that somehow or other, because Christ was God, He sneaked out of all these things and did not really undergo them as we do. It all implies that He shirked the real human issue and was just a fake-sufferer. How can we love a fake?

That is why one must insist on the reality of Christ's human nature. Modernism is no longer rampant. We can again make men contemplate "the face of God", as Fray Luis de León calls the human nature of Christ. We must watch it in all its traits so as to know better the divine meaning.

densed into just one simple fundamental thought, which is the meaning of the work. Thus the *Summa Theologica* of St. Thomas, which is a vast, complex and difficult work, can be summed up in two words; it is the history of man leaving God and returning to Him: "Thee, God, I come from, to Thee go." Thought, therefore, has this peculiar character: it makes a oneness out of that which is varied and multiple.

Consequently, it is a characteristic trait of higher intelligences that they unify their knowledge much more than weaker minds can ever do. As St. Thomas so accurately observes, it is the property of genius to see and understand everything in the light of just a few and very simple ideas. Experience bears out the profound truth of this assertion. The stupid man does not control his facts, but is overburdened and labors under their weight simply because he cannot unify them. And modern test constructors know this so well that the capacity for perceiving some form of abstract unity (as in the so-called analogy tests) is invariably taken for a sign of good mental capacity. According to Spearman,³ it is the function which correlates most highly with intelligence.

In our times positive scientists have gathered up countless facts about matter and life. With extraordinarily accurate methods they have penetrated deeper and deeper levels of material reality, finding an ever growing complexity even in the smallest and humblest things. This very abundance of facts sometimes overwhelms them. They cannot see the forest for the trees nor the trees for the very multitude of leaves. Take the case of biology.

³ Spearman: *The Abilities of Man*, London, 1932.

The petal of a rose is made up of millions and millions of cells. The cells themselves have an extraordinarily complex structure, being made up of many minute organs. Further, these organs are composed of organic matter whose molecules in turn have a most complicated chemical formula. If we go still deeper into the atoms which make up these molecules, we find that these atoms are also extremely complex, composed of a proton and electrons; in fact they seem to resemble a planetary system in miniature. All this is quite overwhelming because it looks to an untrained eye like a heap or a jumble of infinitely complicated things. But for all that, the petal of a rose remains a very simple, obvious and lovely thing; quite as overwhelming in its simplicity as in its complexity, though with a different kind of "overwhelmingness": for whereas the one is troubling and disquieting, the other fills one with joy and selfless, wondering pleasure.

It is the capacity of great thinkers that they do give to that which they touch that simplicity and oneness of a simple little rose leaf. They do not ignore the detailed facts; on the contrary, they analyze them and control them fully; but precisely because they control them they are capable of reducing them to just one fundamental beautiful oneness. This capacity of the mind for contemplating the unity of things is called wisdom. Its correlative, that is, the capacity for honest, accurate, painstaking analysis, is called science. They are not exclusive but complementary. Happy the scientific tradition which is capable of imparting simultaneously these two methods.

There is, also, another quality of thought which is most important and is also a characteristic trait of real in-

telligence: the capacity for seeing very clearly, in any given question, which is the essential point from which all the others are derived and which might be termed the soul of the matter or the system. In a poem, there is a "root thought" from which everything else flows. In a philosophical system, there is a fundamental idea which is the backbone on which everything else rests. In Kantian philosophy, for example, it is the subjectivism of a mind, which is incapable of coping with anything else besides its own immanent creatures: the so-called forms a priori. In Hegelian philosophy, it is the principle that all reality is reason and that all reason is real. In Professor Thorndike's system of psychology it is the conception of mind as a bond-making machine, incapable ultimately of any other function except that of stitching together sense impressions. A moron might not be able to disentangle in a poem or a philosophical treatise that which is basic, ultimate and simple; that which runs like a live wire from beginning to end of the entire system. But intelligent thought has precisely this capacity. It sees the point, the soul, the spirit of the thing. This capacity of the mind is called intuition. It is also a most necessary asset in any type of scientific work.

When a man of science has these three intellectual habits, when he is synthetic and analytic and intuitive, and when, further, he has a creative urge to deepen and unify more any scientific field on which he may chance to work, that is, when he is dynamical; we have one of those personalities, which, however, much they may differ from us in opinion, never fail to impress us and inspire us. That was the case, assuredly, with a man like St. Augustine; Leibnitz,

Newton, Pasteur, come certainly under the same category. These are, however, but the partakers, not the full possessors of these gifts. It is in the human nature of Christ that the plenitude of these intellectual virtues is most clearly seen. In the moral domain in which he condescended to be our Master, not only because it is the most difficult, but because it is the most transcendental, Christ is synthetic and analytical, intuitive and creative as no man before or after Him has ever been.

(B) THE INTUITIVE NATURE OF CHRIST'S THOUGHT

Religion, for the ancient Jews, was an extremely complicated process. They were bound to a definite diet in matters of food; they had many and different kinds of ablutions; their social relations with the Gentiles were mapped out in exact intricate detail. As if this were not enough, under the Pharisees ablutions and rites had been multiplied ad infinitum, so that the religious life of the people became unbearable. Amidst this confusion of external rites and legal observances, the sense for the real essence of religion, the disposition of the heart, the right intention, the inward purity of a clean mind and an honest straightforward will, bent on serving God unselfishly for love and not out of servile fear, had been lost or obscured. It was at this moment that Jesus stepped into the picture and with sure, unwavering touch distinguished the essential from the merely accidental, and set his finger on the very heart of religion: "Master, which is the most important commandment of the law?" and Jesus answered him: "Thou shalt love the Lord thy God with thy whole heart, and with thy whole soul and with

thy whole strength." The weight of religious emphasis must not be thrown on the externals, He taught; for "the reign of God is within you", and, "The time is near when men shall worship God in spirit and in truth." With infinite tenderness He summarized all religion and all relations between God and man in the simple and intimate word: "Father".

(C) THE ANALYTIC QUALITY OF CHRIST'S MORAL GENIUS

This clear perception of the essentials did not obliterate or blur in Christ's mind the details of religious observance. On the contrary, He kept the law and made all His disciples keep it: He paid the religious taxes for the temple; He attended the religious ceremonies in Jerusalem; He observed the Sabbath; He sent the sick whom He cured to the priests for an official recognition of their recovery; He ate the Paschal lamb. But in all this He was never swamped by the mass of ritualistic detail. In His mind and through His lips the essence of all religion was formulated with a clarity and a precision which astonished His hearers. They thought they were hearing new things, although He was in reality (very often at least), merely emphasizing truths which had been stated clearly enough in the Old Testament. It is the prerogative of great minds to make old things look new, by seeing them more deeply and feeling them more intensely.

(D) THE SYNTHETIC POWER OF CHRIST'S MORAL THOUGHT

If ever there was a man who saw the whole of life in the light of just a few simple ideas, and to be more accurate, in the light of just one fundamental principle, then, indeed,

it was Jesus. Jesus lived for the will of His Father. In the light of that divine will, He founded His church, preached His doctrine and accepted death. "I have meat and drink", He said, "which you do not know: the accomplishment of My Father's will." At the age of twelve, He left His Father and Mother (with what anguish of heart), in order to attend to His Father's business in the temple. Who are those who come nearest to His Heart? Those who do the will of His Father, for they are His Mother, sisters and brothers. When He judged men, He did so according to their relation to the Father. The prodigal was really a prodigal, because he left His father's house. When Jesus was angry with Peter, it was because Peter wanted to hinder Him from drinking the chalice of the passion which His Father had given Him. When He condemned the Pharisees, it was ultimately because they had substituted the traditions of men for the will of His Father. He came into the world not to do His own will, but the will of the Father who sent Him. And having accomplished it, even unto death, He said upon the cross with a great cry: "Father, into Thy hands I commend My spirit."

(E) THE PERSONALITY OF CHRIST AS A CREATIVE GENIUS

To those who defend the thesis that man is essentially a product of his environment, the idea of a creative intelligence capable of surmounting the barriers of local convention and of bringing something new into the world is an intolerable proposition. Less extreme than this is Professor Spearman's doctrine that, since all creative action consists ultimately in the perception of a new relation,

creative activity is, after all, nothing so extraordinary. In fact, Professor Spearman is rather apologetic about having to shatter illusions on this subject.⁴ Granted, as Spearman suggests, that inspired thought, when it does create, simply does so by seeing a new relation, it still remains true that Spearman has missed the whole dynamical side of man's creative activity, whether scientific, or moral or aesthetic. First of all, the perception of the new relation can be of the greatest importance. When a Dutch clock-maker devised the first telescope as a plaything and sold it as such, it had not occurred to him, as it did to Galileo, that the plaything might turn out a most important instrument to observe the stars with. This discovery was simply the perception of a new relation: the relation, telescope-stars. But it takes a genius to see such relations, and secondly, when someone does see them, it is because he is, as Priestley used to say, "a scientific hunter", with a very deep yearning to know more and more. Creative genius, then, is not merely a capacity for perceiving relations, but also a thirst for a deeper knowledge of a reality whose secrets are dimly visualized, and hence a tendency to be on the alert for new relations. Something similar happens in art. If Richard Wagner discovered new tones, new harmonies, new subtle instrumental effects, he did so because he had deep, subtle feelings to express. This yearning to express new shades of beauty made him grope for and find new mediums of expression which would express his idea. When Spearman, therefore, makes the perception of relations the principal factor in creative activity, he is putting the cart before the horse. The fundamental

⁴ C. Spearman: *Creative Mind*, Cambridge, 1931.

phenomenon is the thirst, the yearning for beauty born of a dim intuition of its loveliness. The perception of the relation comes afterward. A careful reading of the biographies of great artists proves this quite conclusively. In a real sense, then, all creative activity (as Plato noted in the *Symposium*), is born of love and has as its end a revelation.

The greatest revelation the world has ever received is that made by Jesus. The reference here is not merely to the revelation of such mysteries as that of God's own intimate family life, the Holy Trinity, but also to the moral aspects of his message.

If there was anything characteristic of the world in which Jesus lived, the Graeco-Roman world of the early empire, it was its utter disregard for the mere individual, its contempt for the weak and the humble, its worship of the state and of sheer material force. Ultimately, the very essence of Roman morality was that right is might. As for the leading Jews of that time, their conceptions of greatness were no less materialistic. They were awaiting a Messiah; but this Messiah was to be a political liberator, a great general like Alexander or Caesar. They wanted a world empire of wealth, honor and material domination. When Jesus offered them the empire of love and of virtue, they killed Him. Material greatness had become the idol of the pagan and Jewish world.

The most wonderful thing about the message Jesus brought to the world was that it promulgated the rule and the greatness of small, simple, lowly little things. He stressed the infinite value of individual human life, the superiority of spiritual strength over mere brute force and

the power of right over all material influences of money or of arms. "The kingdom of Heaven", He said, "is for the little children." And with that phrase, He gave a crushing blow to material paganism and Jewish materialism. Neither the pomp nor the power of Rome and Jerusalem were the real conquering might in the world, but innocence, kind sweetness, truthfulness. These were the terrible weapons of a new reign which was ultimately to possess the earth, to inherit all the intellectual glory of Greece and the influence of Rome. We have become so used to the words, "The Kingdom of Heaven belongs to the little children", that we have lost the feeling of the impression which they must have caused on those who heard them for the first time. It had taken Plato ten books of the *Republic* to prove that right is not might; that goodness is power, and not vice versa. And some men had heard him in wonder, but he had converted none and his doctrine remained in a book which few could understand. In the simple words of Jesus is restated all the wisdom of Socrates, but with this difference: that what Socrates said with effort, with a wealth of abundant, and sometimes labored, analysis, Jesus pronounced in words of a simplicity whose depth can be fully appreciated only by those who give their lives to the study of moral ideals. Of course, this is only the perception of a new relation. Childhood and power, both were there. Childhood and power had not been seen as synonymous. The perception of this relation is born of an infinite love for the gentle, conquering omnipotence of goodness and of a deep intuition of its loveliness.

Christ's teaching on purity, marriage and virginity was also tremendously novel. He speaks of a new kind of

eunuch, whose life was to be, not one of sullen barrenness at the door of an oriental harem, but one of fruitful loving self-denial in the service of all mankind. His doctrine of brotherly love carries even to the heroism of loving one's enemies, and supposes an unselfishness, a self-possession and a dominion over animal passion which no human mind had even thought possible. As to His imperialism, He also wanted to conquer the world: "Go ye into the whole universe", He said, "and preach the gospel to all creatures." But the weapon of His soldiers was to be poverty. "Blessed are the poor for theirs is the Kingdom of Heaven." A strange sort of imperialism this, which sets out to conquer the world as a man might go out to a picnic, with a walking stick in his hand and not even a clean change in his bag. It is the imperialism of truth, of absolutely unselfish love, which is willing to sacrifice everything, even life, because it holds everything except goodness as wholly worthless. "What does it profit a man if he gain the whole world and suffer the loss of his own soul?"

There is then a novelty about Christ's thought, a simplicity in its richness, which not only compares with that of the greatest artistic geniuses, but shows up as incomplete and inadequate all the wisdom of the greatest philosophers. What they strained to say, what they mumbled, what they half insinuated, He expressed with the depth of the greatest Greek philosophers and with the simplicity and plasticity of the world's greatest poets.

Wisdom, science, and intuition, then, were the prerogatives of Jesus as of no other man, just as the urge of His creative thought makes human wisdom cheap and pale, like

baser metals in the presence of pure gold. Thus He gave a meaning to life such as no philosophy had ever been able to give. The world of Aristotle remained a bleak world; and his "Prime Mover", a very distant God. Men said to themselves, on seeing the wonders of this universe: "This world of ours, this our home is indeed well furnished. But where, O where is the host?" Here, again, Jesus completes pagan philosophy just as He had completed the Mosaic revelation: "Our Father, who art in heaven, . . . Thy kingdom come" . . . "In My Father's house there are many mansions and I go and prepare them for you." Thus this cold universe is transfigured with the warm glow of a nursery; all men are God's children; when they shall be grown-ups (grown-ups in innocence and goodness) they shall go and live with their Father and sit at His table.

A rose petal (as has already been said), is a very complicated thing, if looked at with a microscope and analyzed chemically and physically. For all that, it is just a simple, beautiful, rose petal. So it is with life and the whole of creation, when looked at in the light of Christ's wisdom and creative revelation.

(F) THE PERSONALITY OF JESUS AS A HERO

It has been the fundamental error of many philosophers, and it remains one of the fundamental errors of our days, to confuse knowledge with virtue; the contemplative abstract mind, with practical reason. It was Plato's mistake. Aristotle corrected it, and showed that abundant knowledge in the purely abstract sphere was no insurance against weakness and even vice in practical life. The general

principle of goodness might be known, but who could be certain that he was going to apply it to this concrete case? In all times and all places, all ordinary men, even the best among them, have been humbugs, more or less. Is not that the sting of Sinclair Lewis's satire in *Babbitt*? Poor Babbitt's will was very good. But what about the corresponding actions? Like a good Rotarian, Babbitt's ideal was to serve. How often, however, was this service of his just undiluted selfishness, though more or less camouflaged under a heap of resounding phrases? This disproportion between intention and realization, this split between principle and action, this fundamental disharmony and dishonesty is so characteristic of human nature, that it has become the basis of a whole system of philosophy.⁵ There is, then, a fundamental disproportion in human life between aspiration and realization. When the character is truthful, this disproportion is acknowledged. When a character is weak, all that is dissimulated, slurred over. Such men like to think that they are what they would like to be.

There is nothing more beautiful in the human character of Jesus than the absolute consistency between His teaching and His works; His ideals and His actions; His absolute, undiluted and transparent honesty. He, the thinker, the idealist, the poet, the creator of a unique system of thought, is loyal to every particle of ideal He has propounded. There is in Him no split, no disproportion between desire and action. Nothing remains undone; nothing shirked; nothing feared. He is pure realization

⁵ Schelling's. It is also the rich, fundamental thought of Maurice Blondel's inspiring system.

and absolute truth. He is a complete, perfect harmony. He is one.

Intellectuals always face the danger of evaporating into the thin air of speculation; idealists, of remaining in the world of ideal. Such men are the victims of circumstances and the creatures of fortuitous action. They do not control; they are controlled. Hamlet is the best example.

There is nothing of this in Jesus. He thinks, He loves, He creates, and, above all He realizes. If realization means death, He dies. The might of Rome and of Judea crash against His loving human breast and shatter it. But truth is stronger than Rome and Judea. It is the weak who conquers. It is the strong who dies. Above the majesty of the Roman Capitol soars the shame and the weakness of the Cross.

(G) THE HUMANISM OF JESUS

A man can be very intelligent and yet have little power of sympathy. For all his analytical genius the personality of Emmanuel Kant is not very lovable. It is too cold, too rigidly methodical, too far away from the easy-going manner of ordinary men. Most people would be rather shy of the crusty old bachelor, regular in his habits as clockwork, eternally rapt up in the thin air of his profound and original criticism. A man can also be a great artist and yet be sour, difficult, retiring. Think of Turner's almost eremitical existence. In spite of his really kind heart, the flinty old man (who, being rich, lived like a pauper in order to leave his money to pauper artists), must have been rather freezing.

On the other hand, there is a quality about certain men,

a warmth, an obviousness, a loving simplicity which draws to itself like a glowing fire on a cold day. It is sometimes linked up to a great mind, as in Lincoln. In such cases it is simply overpowering. Without genius, backed at the most by a fair intelligence, it still can be wonderfully beautiful and extraordinarily influential. Take the case of Pestalozzi, a mediocre intelligence, but a great heart, if ever there was one and a lasting inspiration to all educators, by the sheer power of his deep, unwavering love of men. How many teachers would go hungry, when they have sufficient to eat, as Pestalozzi did, just because the thought of poor starving children urges them to co-suffer with them?

It is this quality of knowing, "loving interest" for all things human which is the very essence of Christian humanism.⁶ It is, after all, the meaning of the age-old saying: "I am a man: I can be indifferent to nothing human." The term "loving" needs to be applied to "interest", because mere intellectual curiosity for things human does not constitute Christian humanism. Goethe was supremely curious of all human things, yet he was unwilling to sacrifice much for any man. He was too wrapt up in himself; ultimately he was the end of all his aspirations. What a contrast to the tragic figure of Beethoven, whom he disliked precisely because Beethoven was not cooped up in himself nor too interested in self-advancement or in the trivialities of a court life. Of the two, Beethoven was surely the Christian humanist. Gigantic as Goethe was, as an aesthetic intellectual, his paganism cut him off from a living personal contact with men, loved in themselves and

⁶ See the treatment of this important point in Part II, Ch. 2, p. 185.

for their own sake. He may have been a light. He was certainly not a warmth or a ferment.

This kind of humanism, which is harmonic knowledge and is unselfish love, an alert interest and an affectionate giving of the self, is one of the most outstanding traits in the human character of Jesus. He called Himself, again and again, "The Son of Man", a mysterious phrase, calculated to evoke the mystery of the prophecies of Daniel; strange and paradoxical in Him who knew Himself to be the Son of God. The phrase is pregnant with tenderness for that human nature of which He partook so fully (as St. Paul points out), that He did not repudiate a single one of its weaknesses except the supreme weakness of sin.

Not only in this but in His very way of life, Jesus was most human. The prophets who preceded Him had often lived in the wilderness. They had surrounded themselves with the halo of extreme asceticism. Jesus lived the ordinary life of the ordinary men of His time. A village lad in Nazareth, an ordinary village carpenter, a wandering preacher, He was loved, by the crowds, by the publicans, and by the sinners who begged to have Him at their feasts; by rich intellectuals like Nicodemus, by simple Roman soldiers, and by the children who seem to have approached Him without fear or shyness.

The supreme proof of His human sympathy is that the almost fierce integrity of His moral ideals, the withering fire of His zeal for purity and for justice, could not estrange Him from the black sheep of His fold. The distinction between sin and sinner (the moral and the human element in a crime), which, after two thousand years of Christianity, has become obvious to so many, was

not common property then. He preached it and He lived it. His treatment of Magdalen, of the adulteress, and of the good thief, the parable of the lost sheep, the divine parable of the prodigal son, are the imperishable monuments of His mercy.

In His relations to inert things, the alert sympathy of Jesus is not less significant. It has been noted again and again, by very able historians, that the whole life of Palestine can be reconstructed from the words of Jesus, full as they are with traits of His countrymen, their customs and even the peculiarities of their scenery. As He loved men, He loved things, and saw them, as lovers always do, in the full, detailed richness of their concrete nature. How many familiar scenes are depicted in His sayings: the happy housewife exulting over the finding of her money; the unhappy, labouring mother; the bloated, selfish business man making elaborate plans for a "good time"; the wealthy, hard patrician, insensible to the sufferings of beggars; the Pharisees with their broad phylacteries, their pompous seriousness, their solemnity and their hypocrisy; the astute shrewdness of Herod, cunning as a fox; the self-willed children in the market-place, difficult to satisfy because they do not want to be satisfied; the sower, the reaper, the fisherman; the rain and the sun, the beauty of the flowers, more wonderful in their simple beauty than Solomon in his glory! Does not all this betray that for all things Jesus had a love and a sympathy and the affectionate understanding of an artist for the creature which fecundates his mind?

Just and merciful, idealist and realist, leader and servant, intellectual and lover, king and friend, Jesus harmonizes

in His personality all the conflicting partial tendencies of human life. Just as there is no split between His theoretical and His practical mind, between His knowledge and His action, there is no split between the partial workings of His different activities. He is integrated; He is one.

He, better than anyone else, can teach us how to think, how to love and how to make ourselves into the ideal of moral beauty which He revealed and which lives in us. If we are educators, if the raw stuff we mould is not marble or wood, but human life, He will teach us to mould men as no other pedagogue ever can. For He came that men, by conquering that which is animal in them, should be like Himself and should have more and more abundant life. "Ut vitam habeant et abundantius habeant".

Mark Christ our King. He knows war, served this soldiering through;

*He of all can handle a rope best. There He bides in bliss
Now, and seeing somewhere some men do all that man can do,
For love He leans forth, needs His neck must fall on, kiss,
And cry, "O Christ-done deed! So God-made-flesh does too:
"Were I come o'er again," cries Christ, "it should be this."*

— Gerard Manley Hopkins, *The Soldier*

(3) EDUCATIONAL CONCLUSIONS AND PRACTICAL APPLICATIONS

(A) POSSIBILITIES AND LIMITATIONS OF SCHOOL TRAINING

From a right conception of personality, can be deduced a clear notion of the possibilities and limitations of school training. It is most important that educators should know exactly how much a school can or cannot do for a boy.

False optimism and pessimism on this point are both noxious. Because some teachers think that a school can make anything out of any child (futile optimism), on seeing mediocre results, they suffer grave disillusionment.

The complaint is often made that such or such a school is not producing any great personalities. How far and in what sense can any school produce such personalities? If, socially speaking, a human personality is constituted either by powerful intelligence or great artistic talent or a strong social spirit (unselfishness and practical love of men), then the following conclusions may be drawn.

A school cannot make a genius or even a great intelligence. There is sufficient psychological evidence (confirmed by observation and common sense), to show that the potential of natural intelligence a man may have is not acquired by training but inherited. The so-called "general intelligence" of a man does not depend on what he studies. What he studies, however, may have a great influence on a man's native talent. In other words, genius is not made, it is born. The full "exploitation" of genius, on the other hand, does depend on human initiative.

Hence a school cannot be held responsible for producing or not producing geniuses. It can be held responsible for giving or not giving a genius all the opportunity which his inborn talent demands. A military school cannot be held responsible for the natural, inborn fighting efficiency of any man; but it can be held responsible for giving or not giving its students the best possible arms as the instruments of their natural, inborn courage and the best possible training in the use of those arms. If it gives them blunderbuses in the twentieth century, it is certainly guilty of incompetency. The same is true of any school, as far as the

training of personality goes. The school has to give the best possible scientific ideals and the best possible scientific methods to its students, in proportion to their natural capacity. Those are the limitations of its possibilities and, consequently, of its responsibilities in the scientific field.

The same can be said of artistic training. There is an inborn artistic talent with the creation of which the school has nothing to do. All the school can do is to give the student the opportunity which his artistic talents demand.

Something similar can be asserted of the moral element in social personality, but with still more reservations. There is an inborn disposition to virtue which no school can impart. Professor Burt⁷ proves that an unbalanced emotional life is a great hindrance to virtue: not in the sense that some emotionally unbalanced children do not make good, in spite of everything, but in the sense that, because the work of self-discipline becomes much more difficult for unbalanced temperaments, the probabilities of such a discipline being realized in their lives are naturally much less.

The consequence is obvious: any school, which wants very high results, must select. Results are a function not of the school alone, but of the school plus inborn capacities. On the other hand, schools which cannot select (as is often the case with state schools, which must take in everyone), must be judged by results in relation to the raw material which they obtain. Anything else would be gross injustice.

Besides in training the moral side of personality, the personality of the teachers themselves plays a very important role. First, whereas the possibility of a teacher contradicting, in practical life, that which he has taught in the purely scien-

⁷ Cyril Burt, *The Young Delinquent*, London, 1931.

tific sphere is very small, it does happen that, in the moral order, the life of a teacher is often a blatant contradiction of that which he is supposed to be teaching in class. An instructor says in class that two and two make four. He will never deny that with his practical behavior. But he may be enhancing in the history class, for example, the beauty of unselfishness and at the same time be hopelessly selfish; a contradiction which students are very quick to see.

Further, it can happen that the home of a child is a concrete contradiction of everything which the school is wanting to instill. In such cases, experience shows that it is generally the home which wins.

Finally, because man is free, it can still happen that, in spite of communicating great moral ideals and affording good opportunities for their realization a boy may not want to be good. It is a possibility which, if one is not a determinist, has to be reckoned with.

The consequence of all this is that moral training in general is still more difficult than intellectual training. Intellectual training takes in but one part of man. Social and moral training take in the whole of man. The intellectual training is not generally fought against by the personality of the teacher or by the family or by the social group where the child may chance to live. The moral training often is. Free will plays here a very large part. And free will is strongly combated by the animal instincts of man.

(B) PERSONALITY OF THE TEACHER

As far as man-training goes, it is the personality of the teacher which has generally the greatest influence in all

fields. Trees produce trees and men tend to produce men. A great man (great intellectually, aesthetically or socially), always has disciples. It is the law of human energies that the greater energy shall dominate the lesser.

Besides, since training consists in the assimilation of ideals and methods, then it can be easily seen why a personality has such a great influence. A personality is generally the personification of an ideal: generosity, intellectual efficiency, social sense; and the concrete manifestation of this ideal in certain practical methods. Hence, living with a great man is always a privilege. For our minds love to contemplate the abstract in the concrete. And in a great man one sees, in a thousand picturesque ways, what it is to be really kind, or courageous or intellectually strong.

(c) EDUCATIONAL INFLUENCE OF GREAT HISTORICAL PERSONALITIES

If personality remains the most potent educational factor on the part of the teacher (because personality is concrete plastic ideal and method), it is clear that the teacher must also strive to put his students in contact with the greatest personalities. History and literature are the best means. If boys are to think well they must be put in contact with men who thought vigorously and well. If they are to act socially, they must be put in contact with great social heroes.

In certain study courses, in philosophy, for example, the necessity (and a very urgent one), of giving a general view of things drives teachers very often to write textbooks, where every truth is catalogued and put in its logical place. This has one advantage: the danger of confusion is lessened and the general structure of the totality is clearly

put forward. But it has a great disadvantage: outlines, summaries, compendia of any kind, are impersonal. There is no living personality behind them. They have as little life and plasticity as a geographical chart. Consequently, any teacher who aspires to create scientific personalities should be careful to supplement the dry-as-dust impersonal textbooks of the students with a serious course of readings in the original works of great thinkers and scientists.

Something similar happens in the moral sphere. It is not catalogues of virtues which are going to inspire boys, but the living manifestation of real virtue in the real lives of men. It is the living personality of Christ which remains the greatest educational force of history. Next to Christ, it is the Church. In her life, which is simply the eternal manifestation of Christ in time and space, men can renew their contact with the Ideal of God, as He appeared amongst men, full of grace and of truth. The history of the Church presents a gallery of men, whose doings are the concrete historical manifestation of great ideals and of practical methods, for the realization of these ideals. The ideals of courage, self-control and justice are vividly shown in the lives of the martyrs, virgins and apostles; the ideals of science and wisdom are incarnated in the lives of the doctors. Finally the highest kind of practical sense or prudence (the prudence of those who are willing to lose a cent in order to earn a million), is shown in the lives of all Christian heroes, since they all preferred the eternal to the temporal, God to any created thing.

APPENDIX

INTRODUCTION

Points for Discussion

- (1) The concept of personality, its psychological and social significance.
- (2) The dehumanising influence of behavioristic and of materialistic psychology in general.
- (3) The humanising effect of a genuine psychology, which takes into account the totality of man and does not limit its outlook to his material functions or to an interpretation of the higher human functions in terms of the S-R.
- (4) The question of method in psychology: not experiment versus tradition, but experiment supplementing tradition and tradition controlling experiment.
- (5) The problem of mental hygiene.

Readings

- (1) On the psychology of personality: See Jacques Maritain, *Les degrés du savoir*, Paris, 1932, pp. 450 ff.; Louis Mercier, *The Challenge of Humanism*, Oxford, 1933, p. III.
- (2) On method in psychology: See J. Maréchal, *Science and Psychology, Studies in the Psychology of Mysticism*, New York, 1927, p. 3; Edward Spranger, *Types of Men*, Halle, 1928.

PART I, CHAPTER I

Points for Discussion

- (1) The quality of man's mind which distinguishes him from the universe around him. Is "greatness" to be identified exclusively with extension or mass or speed?
- (2) The characteristic attributes of matter. Can matter or material energies cope with meaning?
- (3) The function of meaning. Its relations to sound, signs and movements.
- (4) If matter cannot cope with meaning, do you think that organized matter should?
- (5) The nature of instinct. To which specific objects are instincts riveted or fixed?
- (6) Do men and chimpanzees organize their movements in function of the same objects? Which is the object of man's activity, in function of which animal activity cannot be modified?
- (7) Can monkeys contemplate in the same sense as man?
- (8) Give a definition of "spiritual" and state the reasons on which the greatest thinkers of humanity from time immemorial have based their contention that there is a spiritual function in man. Are these reasons "myths" or "mysticism" or "dogma"?
- (9) Why are "association" or "bond-making" no explanation whatever of certain functions, such as abstraction?
- (10) The relation of thought to senses and imagination.
- (11) Why is the concept of "being" the widest and in a sense the most significant?
- (12) How would you prove from the history of science that there is a potential infinity in man's thinking power?
- (13) Why is a "spiritualistic education" necessarily an "activity school"?
- (14) The problem of mental measurements. Relations between mind and body.

- (15) Indirect physiological measurements of the higher functions. The lie-detector.
- (16) Indirect measurement through the quantity of achievement.
- (17) The nature of general intelligence.
- (18) The completion test as a mental measurement. Value of the essay type of examination.
- (19) The essential function of general intelligence. Its dynamical aspect.
- (20) In what sense can it be said that one measures general intelligence? What does the I.Q. tell us about the mind of a person? Advantages of mental tests.
- (21) Why is a spiritualistic education necessarily an activity school?
- (22) Respective functions of the teacher and the learner in the learning process.
- (23) The role of meaning in the integration of man's mind.
- (24) Given that the specific function of man's mind is the abstraction of meaning, which are the educational functions of the classics and of literary studies in general; of science; of philosophy; of religion?
- (25) How does the meaning of things have an influence in moral life?

Readings

On animal psychology: W. Köhler, *The Mentality of Apes*, New York, 1931; R. M. Yerkes, *The Great Apes*, New Haven, 1929; E. L. Thorndike, *Educational Psychology*, New York, 1927; W. N. Kellogg and L. A. Kellogg, *The Ape and the Child*, New York, 1933.

On the process of abstraction: F. Aveling, *The Consciousness of the Universal*, London, 1912; A. Wilwoll, *Begriffsbildung*, Leipzig, 1926.

On the nature of thought: Henri Bergson, *L'évolution créatrice*, Paris, 1928; G. F. Stout, *Mind and Matter*, Cambridge, 1931; M. Blondel, *La Pensée*, Paris, 1934. (Blondel's book is the most penetrating analysis of the thought process from

both a psychological and a philosophical standpoint which has been made in this century.) Spearman, C., *The nature of intelligence and the principles of cognition*, New York, 1923; *The abilities of man*, New York, 1927.

On Mental Measurements: Terman, L. M., *The Measurement of Intelligence*, Boston, 1916; *Stanford Revision, Binet-Simon Scale*, Boston, 1916.

PART I, CHAPTER II

Points for Discussion

- (1) Why should a teacher know anything about the psychology of Art? Does history tell us anything about the educational influence of art? Why is it of special interest to the psychologist? What is the educational significance of inspiration?
- (2) Contrast the quality of creative action with that of thought.
- (3) Prove from experience that "art" as such is not "useful". Deduce from the nature of "beauty as such" and from the lives of artists, that the essential quality of creative action is not selfish. Contrast animal instinct with man's creative action.
- (4) How would you prove that creative action is intuitive? How does Patrick's experimental work on creative thought in poets support this contention? Can intuition be explained in terms of mechanical "bonds"?
- (5) In what sense is creative action autonomous? How do you prove the autonomy of inspiration?
- (6) Would you seek inspiration in practising methods? How have great artists sought and found inspiration? How does Patrick's experimental work confirm the view stated in this chapter on the origin of inspiration?
- (7) Describe the artist's condensation of experience. Why is this condensation a unity in a multiplicity, in other words, a harmony?

- (8) Describe the structure of the creative act, deducing it from the empirical evidence submitted above.
- (9) Would you say that parents who are artists are bound to have artistically gifted children? On what evidence would you base your answer?
- (10) Has inspiration anything to do with instinct? How are instinct and inspiration related to one another?
- (11) What is subconsciousness? What is the relation of inspiration to subconsciousness?
- (12) Make an accurate comparison of instinct with creative power and show that these two tendencies cannot be identified. Show that Freud's theory of "libido", as the only source of inspiration, is contrary to facts.
- (13) From a description of "form" show how no amount of "bond-making" can ever explain the mental process which produces artistic form. Point out how form is disrupted in the picture by an insane person described in this chapter; and how "form" is present in the cubist work of Picasso.
- (14) Make a summary description of man's creative activity, enumerating the psychological elements which compose it.
- (15) Measurable elements in creative power.
- (16) The three psychological elements of a habit.
- (17) How to inspire in the different study subjects by aiming at a living contact with the content.
- (18) Art and the making of ideals. Art and unselfishness.
- (19) The sociology of art. If art considered in itself and as an "absolute" is not useful, how can art exert any social influence?

Readings

The nature of creative power has been analyzed with depth and accuracy by Kant in his *Critique of Judgement*. Kant is mainly interested in the nature of aesthetic pleasure, as felt by the man who contemplates beauty. But, as Plato so well notes, the creator of beauty is essentially a contemplator of the same

before he translates it into a material form. However much one may disagree with Kant's subjectivism, it is still true that his analysis of the aesthetic function remains one of his most outstanding achievements and one of the most fruitful in the psychology of aesthetics. The dynamical element in creative power has been treated in a masterly fashion by Hegel in his *Philosophy of Art*. Maritain in his *Art and Scholasticism* has correlated Kant's doctrine with the scholastic doctrine. It is, however, in Plato's *Symposium* that the deepest analysis of creative power has been made.

Abundant introspective material from the biographies and autobiographies of great artists will be found in the books cited in this chapter. See also: Beethoven, *Letters*, London, 1936; Gerard Manley Hopkins, *Letters and Correspondence*, 2 vols., Oxford, 1935.

On heredity and creative genius: E. Kretschmer, *The Psychology of Men of Genius*, London, 1931. H. S. Jennings, *The Biological Basis of Human Nature*, New York, 1930; also Dr. Alexis Carrel's stimulating book, *Man, the Unknown*, New York, 1935.

On the influence of instinct and temperament on thought: Kretschmer, *op. cit.*; R. G. Hoskins, *The Tides of Life*, New York, 1933.

On the function of imagination: L. Lindworsky, *Experimental Psychology*, Milwaukee, 1931; John L. Lowes, *The Road to Xanadu*, Boston, 1930.

On the function of the subconscious mind, a discriminating student with mature judgment will find illuminating data in Freud's *Introduction to Psychoanalysis*. See also Maurice Blondel's analysis of the influence of passion on thought in his epoch-making book, *L'Action*, Paris, 1893. A summary of this book, containing the most important texts, has been published in the series, *Les Grands Moralistes Chrétiens*. See August Valensin, *Maurice Blondel*, Paris, 1934.

On the nature of animal habits, besides the works cited in the last chapter, see the four articles on "learning" in Murchison's *Handbook of Experimental Psychology*, Clark University Press, 1934.

On the function of thought and will in creative action: Blondel, *La Pensée*, Paris, 1935.

On the quantitative approach to the study of creative power see: C. E. Seashore: *The Psychology of Musical Talent*, New York, 1919; *A Survey of Musical Talent in the Public Schools*, Univ. of Iowa Studies in Child Welfare, Vol. I, No. 2, 1920; R. Alice Drought: *A Survey of Studies in Experimental Aesthetics*, Jour. of Educ. Research, Vol. 20, No. 2, 1929.

PART I, CHAPTER III

Points for Discussion

- (1) Compare the function of thought with that of creative power and of the self-making activity. How would you deduce the spirituality of the self-making activity from an analysis of reflection? Why is responsibility based on reflection?
- (2) Show how the habits of an animal are the necessary and exclusive effect of its material surroundings. Show how in man also there are habits which are the product of his material surroundings. What human habits are not dependent on the material environment, but superior to it?
- (3) Show with practical examples how man's conduct is not always dependent on the material and even social influences which act upon him.
- (4) Compare point by point the different qualities of an animal and a human habit.
- (5) Man's moral patterns are not arbitrary, that is, the creatures of his own fancy or mere "categoric imperatives." Man's moral patterns are derived from reason and nature. Show the connection between morality and psychology.
- (6) Show how the moral pattern of righteousness is one and multiple and hence spiritual in its nature.
- (7) Show how, in the three spheres of science, art, and morality respectively, meaning, form, and righteousness are the three integrating principles.

- (8) Measurable elements in personality.
- (9) Character and personality contrasted.
- (10) Guidance bureaus and personality tests.
- (11) The meaning of a "split personality".
- (12) What has self-respect to do with character-training?
- (13) What are the psychological elements of a strong will?
Why is mere voluntarism weak? What is a motive from the standpoint of a psychologist and how does it differ from an abstract principle or an idea?
- (14) The part of "action" in the formation of a strong will.
- (15) Show how morality is based on reality and how man derives strength from this realism.
- (16) What habits and how many habits should a man have?
Is that a mere matter of arbitrary choice?
- (17) How is the ideal of effort to be acquired in a Christian way?

Readings

On animal psychology: see works by Yerkes, Köhler and Thorndike cited above.

On human habits: see J. Castiello, "The Psychology of Habit in the Works of St. Thomas Aquinas", *The Schoolman*, 1936; St. Thomas, *Summa Theologica*, 1a-2ae-qq. 49-70; *De virtutibus*; *De veritate*, q. 20, a-2 and q. 24 a-4.

On self-control: see Dietrich von Hildebrand, *In Defence of Purity*, New York (Sheed & Ward) and C. C. Martindale, *The Difficult Commandment*, London (Manresa Press, Roehampton).

On motivation: see J. Lindworsky, *The Training of the Will*, Milwaukee, 1929.

On the influence of action: see Blondel, *L'Action*. (August Valensin has a very accurate synthesis of this book in his *Maurice Blondel*, Paris, 1934.)

On character as such in the light of modern German research see: Rudolf Allers, *The Psychology of Character*, N. Y., 1933.

On the quantitative study of personality see: Percival M. Symonds, *Diagnosing Personality and Conduct*, N. Y., 1931.

See also the exhaustive *Report of the Committee on Character Education*, National Education Association, United States Bureau of Education Bulletin, No. 7.

On the pathology of personality see: William McDougall, *Outlines of Abnormal Psychology*, N. Y., 1926. The entire book should be carefully read and analyzed. The student of education must have a good first-hand knowledge of human nature in all its phases. He should try to observe in a clinic the principal types of abnormal personality.

PART II, CHAPTER I

Points for Discussion

- (1) Humane psychology as the basis of a humane education. Possibilities and limitations of the utilitarian system in education. Necessity of moral and aesthetic ideals. Advantages and possible deficiencies in a system of humane education. The dynamical element of ideals. The non-dynamical nature of pure skills.
- (2) Language-study as a school of practical abilities, of skills. Language-study as a school of idealism. Language-study as a school of spiritualism. Language-study as a means to the formation of scientific, philosophic and religious interests.
- (3) History as a source of ethical inspiration. As a school of sociology. As the laboratory where the basic laws of human nature may be studied. As the concrete pattern of Divine Providence. Mr. Dewey's "historical amnesia".
- (4) Science as a school of practical professional skills. The humane attitude in science. "Loyalty to the object" the fundamental virtue of scientists. The urge to "interpret" as the basic danger of all scientists.
- (5) Philosophy as a skill. The contemplative attitude. Philosophy as a school of ethical idealism.
- (6) The practical side of religion. The contemplative attitude in religion. Relations between science and religion.

Need for a parallel progress in science and in the scientific knowledge of religion. Doctrine of the Church on the need for integration.

- (7) The utter absurdity of the "elective system". Adaptation of the humane system to the biological development of man. The ideal of "harmony" or "total integration".

Readings

On the integration of the different study courses: See Plato's *Republic*. This is the oldest known educational psychology and remains even today the very soul of humane education. It is a difficult book, but repays study as few books do. It is one of the great landmarks in the history of human thought. It is significant, moreover, that its fundamental psychological conceptions have not changed. This does not mean that there are no errors in the book. There are: the doctrine of infanticide, for example. Further, in many ways Aristotle clarified some of the fundamental issues proposed. But in spite of that, for sheer breadth of vision and for power of educational synthesis the *Republic* remains unsurpassed. It is the most perfect system of educational integration ever devised by any educator, living or dead.

On the psychological function of the different study courses: See Newman's *Idea of a University*. Nowhere will the student obtain a more profound and subtle analysis of the different study courses than in this utterly indispensable educational psychology. See also F. Charmot, *L'Humanisme et l'humain*, Paris, 1934. This is a masterly work and contains an excellent statement of the humane method in the teaching of the different subjects. Compared with the richness and depth of the data presented in the books here mentioned, the sum of knowledge provided by most educational psychologies seems very meagre indeed.

On the values and methods to be derived from the study subjects: See W. L. Uhl, *The Supervision of Secondary Subjects*, New York, 1929. Though there is no insistence on the problem of integration, many useful ideas and a wealth of practical hints are to be obtained from this work.

PART II, CHAPTER II

Points for Discussion

- (1) What does humanism add to mere instruction? Why is popular humanism superior to mere technical instruction?
- (2) How did the problem of classical humanism arise? Why does the defense of classical humanism in our time necessarily imply a basic psychological problem?
- (3) How is the problem of transfer related to the question of the classics? Enumerate and explain the principal laws of transfer.
- (4) Describe four types of approach to the study of the classics. What ideals and methods can be derived from each?
- (5) Historically speaking, what has been the influence of the classics? Describe different periods of history, showing how the classics do not always have the same influence on education.
- (6) Is the fact that only a few can draw a complete benefit from their study a valid argument against the classics? Show how any scientific tradition is not only an individual, but also a social function.
- (7) Why are the classics of special importance to Catholics?
- (8) Which is the principal problem of classical training in our days? How should that problem be solved?
- (9) Why is the personality of the teacher an essential factor in a classical training?
- (10) What is meant by the principle of historical and social continuity? What argument for the classics can be derived from this principle? Based on this principle, refute Paulsen's argument against a classical education.
- (11) Which is the unique prerogative of a classical training which no other literature can provide?
- (12) Describe the humane attitude, as acquired in the study of the classics.

Readings

On the spirit of humanism: See F. Charmot, *L'Humanisme et L'Humain*, Paris, 1934. This book, based on an inquiry into the actual condition of classical training in France at this present moment, is one of the most brilliant contributions to this subject made in recent years. It treats the problem with deep insight, seeking for that which is essential and that which is accidental in humanism.

See also: Louis Mercier, *The Challenge of Humanism*, Oxford, 1933. This book deals with the problem of humanism from a historical and philosophical standpoint. It contains, further, an excellent statement of the humane position in psychology. The whole work is deep and most inspiring.

On the actual position of classical studies in different countries, see: *The Classics in Education*, London, Board of Education, 1923; P. Arbousse-Bastide, *Pour un Humanisme Nouveau*, Paris, 1930; *The Classical Investigation*, Princeton, 1923. These three books are based on broad investigation and contain most significant criticisms and very shrewd and stimulating observations by men who have given their lives to the teaching of the classics or have observed the effects of classical training in very different social milieus.

On the psychological aspect of classical training: See J. Castiello, *Geistesformung*, Berlin, 1934, where all the experimental material on the subject up to 1934 has been summarized and the results of new experiments stated, especially on the question of the mental attitudes corresponding to the different types of study.

PART III

Points for Discussion

- (1) The meaning of personality. Christ the ideal personality.
- (2) The three basic habits of human reason in the purely scientific sphere. How are they noticeable in the personality of Jesus?

- (3) The two basic aspects of a creative genius. Which of these two aspects is missed by Spearman? The creative force of Christ's moral genius.
- (4) Why is scientific greatness no absolute guarantee of heroism in the practical order of righteousness? The heroic element in the life of Jesus.
- (5) The nature of humanism. The humanism of Jesus. The contribution of Christianity to the cultural traditions of humanism.
- (6) How far is a school responsible for the personality of its students?
- (7) What has the personality of the teacher to do with the formation of a personality?
- (8) Advantages and disadvantages of systematic text-books in the training of a personality.
- (9) In what way can the study of history help to train personalities?

Readings

The material in this section is so abundant, that a list of books can hardly be attempted. Great lives, or deep studies, of Christ, such as the masterly ones by Grandmaison (Sheed and Ward), Karl Adam (Sheed and Ward), and Lebreton (Burns and Oates); and such popular but still beautiful books, like those by Mechler (Herder) and Goodier (Burns and Oates), can never be anything but mere introductions to the gospel itself. They are, at most, shadows. And it is not the shadow which truly inspires, but the reality. The crystal-clear style of the Gospel is the real God-willed revelation of Christ.

As far as the lives of saints are concerned, there is a healthy reaction in our days against the "faked" or "construed" type of biography, which substituted the ascetical conceptions of the writer for God's own work in the life of a soul. The magnificent pioneer work of Fr. C. C. Martindale, S.J., in his brilliant and most human lives of the Jesuit saints (which have been an inspiration to so many in English-speaking countries) have been followed by the longer and more detailed master-

pieces of Fr. Broderick, on Bellarmine and Canisius. In France, the series entitled *Les Saints* has done the same meritorious work.

Many Catholics, in all parts of the world, realise the splendid ideal of fixing and setting the reality of sanctity in biographies of such truth and beauty, that they shall be worthy of the men whom they are attempting to describe. Great laymen have often been fortunate enough to have had worthy painters to preserve their mortal figures. Saints have not always been so fortunate and the beauty of their moral and spiritual life has often been debased by the arbitrary fantasy of pious, but misguided, writers.

On the relations of modern psychological research to religion see Dr. Henry C. Link's book, *The Return to Religion*, New York, 1936. Dr. Link's broad experience in the laboratory and the field of social welfare throws a great deal of light on the relations between experiment and tradition in education.

INDEX

- Abstraction
 - of form, 61-64
 - of ideals, 59-61
 - of ideals and methods
 - from the beauty of Christ's intellectual life, 206-208
 - from the beauty of His creative activity, 208-213
 - from the beauty of His heroism, 213-215
 - from the beauty of His humanism, 215-219
 - of ideals and methods
 - from the classics, 176-183, 188-194
 - from the practice of sport, 164-165
 - of ideals and methods from the study
 - of history, 149-154
 - of languages, 143-149
 - of philosophy, 156-158
 - of religion, 158-162
 - of science, 154-156
 - of ideals and methods
 - from the personality of the teacher, 222-223
 - from the study of great historical personalities, 223, 224
 - of meaning, 27-30
- ACH, NARCISSUS, xi
- Achievement
 - as a basis of self-respect, 124
 - as a test
 - of character, 119-124
 - of creative power, 87-89
 - of intelligence, 35-42
- Action
 - its function in creative work: see creative action
 - its influence
 - on motivation, 127
 - on thought in general, 127
 - its place in the formation of habits, 89-90
- Activity Principle
 - in creative activity, 51-52, 91-92
 - in moral training, 104-107
 - in the abstraction of meaning, 43
 - in the development of personality, 115-119
 - its psychology, 25-27
- Activity School: see Activity Principle
- ADAM, KARL, 237
- ADLER, A., 95
- AESCHYLUS, 91, 177
- Aims in Education
 - adaptation to material and spiritual environment, 146-147, 165-166
 - Christian humanism, 192-194, 215-219
 - development of personality, 1-3, 135-143, 197-200
 - integration of the mind, 45-47, 62-66, 115-119, 161-162, 165-166
- ALPHONSUS RODRIGUEZ, ST., 121
- ALEXANDER, 210
- ALLERS, RUDOLF, 232
- Analysis
 - a quality of Christ's moral genius, 207
 - as a habit of the mind, 203-204
 - in science, 154-156
- ANAXIMANDER, 31
- ANAXIMENES, 31
- ANCIENT MARINER, 85
- Anger
 - as the raw stuff of courage, 114

Animal Psychology

- animal drives compared to human urges
- in creative activity, 75-77
- in connotation, 99-101
- in the cognitive sphere, 21-27
- in habit formation, 99-101
- its influence on modern education, 6-9

ANTIGONE, 31, 126

ANTHEUS, 59

Apperception

- its relation
- to a split personality, 121-122
- to interest and motivation, 128-130
- to meaning, 44-45
- to subconsciousness, 73-75

Apperceptive mass: see Apperception

Appian Way, 33

ARBOUSSE-BASTIDE, P., 236

Architectonic

- of character, 131-132
- of moral habits, 110-114
- of personality, 197-199
- of study courses, 165-166

AQUINAS: see St. Thomas

ARISTOPHANES, 177

ARISTOTLE

- accurate translation of his works sought by St. Thomas, 189
- as a source of philosophical inspiration, 180
- as a thinker, 177
- his conception of God, 213
- on form, 31-32
- on man's curiosity as the matrix of science, 39
- on poetry, 58
- on social instinct, 113
- on teleology, 32
- on the inequality of men, 171
- on the nature of thought, 7
- on transfer, 170

Army Tests, 41

Art

- as a cathartic, 52, 94-95
- as a field for psychological observation, 51
- as an education instrument, 50-53, 93
- as an instrument of mental hygiene, 52, 94-95
- as a refining influence, 52, 94-95
- as a source of inspiration, 51-52
- its function in the liturgy, 96
- its ideal quality in the classics, 191-194
- its sociological function, 93-96
- Attendance of Catholics at Non-Catholic Universities and Schools, 161-163

Attention

induced

- by an animal drive, 25-27
- by inspiration, 91-92
- by love of beauty, 91-92
- by love of truth, 25-27, 31-33

AUGUSTINE, ST., 153, 194, 205

Autonomy of Inspiration, 58-59

AVERING, F., x, 227

Appetites

- controlled by reason, 113-114
- in animals: see animal psychology
- in man: see thought and love

BABBITT, IRVING, xiv

BACH, JOHN SEBASTIAN, 49, 67

BALANCE

- as a habit of right reason, 111-112
- as an attitude, 139-140
- of emotions in relation to educability, 221

Baroque, 5, 53, 130

BEATRICE, 73

Beauty

- as an ideal to be derived from all study subjects, 143-162

- Beauty (*Continued*)
 from the classics, 176-178, 191-194
 from the contemplation of Christ's personality, 215-219
- BEETHOVEN
 autonomy of his inspiration, 58
 emergence of his inspiration from the subconscious, 63-64
 his condensation of experience, 63-64
 his humanism, 216
 his inspiration derived from reality, 60
 his triumph over material environment, 77
 intuitive character of his inspiration, 57
 unselfishness of his creative urge, 55
- Behaviorism
 as a metaphysical system, x
 in psychology: see Thorndike
- BEHN, SIEGFRIED, xi
- BELLARMINE, 224
- BELLEFOREST, FRANÇOIS DE, 62
- BELLOC, HILAIRE, xiv
- BERGSON, 66, 213
- Besford Court, 14, 95
- Bible
 as a handbook of personality, 168
 as a textbook of humanism, 4
- BISMARCK, 69
- BLONDEL, xi, 127, 227, 228, 230, 232
- BLUCHER, 69
- Board of Education (England), 236
- BOETHIUS, 201
- BORING-LANGFELD-WELD, xi
- BRODERICK, FR., 238
- BROWNING, ROBERT, 132
- BUDDHA, 200
- BUEHLER, KARL, xi
- BURHARD-BARDILL, 68
- BURKE, EDMUND, 97
- BURT, CYRIL, 221
- BYRON, 69
- CAESAR, 91, 210
- CALDERÓN
 as a catechist, 51
 his *Life Is a Dream*, 80
- CANISIUS, ST. PETER, 224
- CANNON, W. B., 112
- CARREL, ALEXIS, 71, 230
- CASTIELLO, J., ix, xi, xii, xiv, 3, 14, 131, 136, 140, 148, 172, 174, 232, 236
- Castille, 167
- Catholic Church
 and art, 95
 as a harmonic social unit, 120-121
 as an inspirer, 224
 as a judge and venerator of personality, 2, 116, 117
 as the placard of the supernatural, 185
- CERVANTES, 167, 182
- CHALCEDON, xii
- CHAPLIN, CHARLIE, 95
- Character
 architectonic of 110-111, 131
 its psychological components, 111-114
 relation
 to action, 127
 to art, 92-93
 to motivation, 125-127
 to personality, 120
 unity of, 115-119
- CHARMOT, S.J., FRANÇOIS, 187, 234, 236
- CHAUCER, 86
- CHESTERTON, G. K., 61, 152
- CHOPIN
 his inspiration drawn from contact with reality, 60
 unselfishness of his creative urge, 55
- Christian, Christianity, 2, 5, 125, 130, 193
- CICERO
 his conception of culture, 6
 his personality as a source of inspiration, 91
- Classics
 as a historical reality, 3-5
 as dualistic humanists, 4

- Classics (*Continued*)
 as moulds of mind and character, 176-178
 as projectors of a historical perspective, 185
 as social tradition, 183-186
 as sources
 of artistic inspiration, 180-182
 of cultural inspiration, 182-183
 of mere grammatical lore, 186-188
 of philosophical inspiration, 179-180
 as system of integration, 188-190
 as the most perfect moulds of a humane attitude, 192-194
 different meanings of the term, 175
 the Greek and Latin compared with the Christian, 5-6
 their danger when taught by rationalists, 185
 their infecundity in modern schools due to verbalism, 186-188
 their mystic element, 155
 their unique ideal character, 191-194
 their unique importance to Catholics, 185
- CLAUDEL, PAUL, 167
 Clinician, 12-14
 COLERIDGE, 85
 COLUMBUS, 2
 Committee on Character Education, report of, 233
 Communism
 as hater and annihilator of tradition, 193
 as promoter of class warfare, 113
 its mechanistic, unreal philosophy and psychology, 109
- Connation
 as an ascension of the mind, 165
 as "eros", 48
 in artistic activity, 58-59, 61-66
 in moral life, 104-108
 in scientific activity, 30-33
 see love and instinct
- CONFUCIUS, 200
- Control
 of form by creative power, 61-66
 of matter by thought, 25-30
 of the self by the self, 104-108, 110-119, 202-206
- CORNEILLE, 182
- Consciousness
 as the basis of abstraction, 18-19
 as the root of liberty, 98-99
 compared
 to man's creative urge, 49-50, 97-98
 to thought, 98-99
 irreducible
 to instinct, 21-25
 to matter, 19-21
 its spirituality, 27-30
- Contemplation
 as a habit of mind, 156-158
 of Christ's personality, 200-219
- CRANACH, LUCAS, 68
- Creative Action
 as condensation of experience, 61-64
 its
 autonomy, 58-59
 fecundation by contact with reality, 59-61
 intuitive character, 57-58
 quantitative study, 87-89
 relation
 to heredity, 67-70
 to instinct, 70-73
 to love, 75
 to subconsciousness and the apperceptive mass (imagination), 73-75
 structure, 64-66
 unselfishness, 53-56
- CREATOR SPIRITUS, 86
- Cubism, 84

- Culture
 - its nature, 139, 140-141
 - Latin and Greek as a source of integral inspiration, 182-183
 - see humanism
- Curiosity
 - as the basic quality of intelligence, 39
 - the matrix of science, 30-33
- Curriculum
 - principles for the construction of a, 135-142, 146-147
- DANIEL, 217
- DANTE, 49, 70, 73, 94, 182
- DAWSON, CHRISTOPHER, 159
- DEMOCRITUS, 31, 155
- DEMOSTHENES, 148, 191
- Determinism
 - contradicted by the experience of the race, 104-108
 - in modern educational psychology, 6-9
- Development
 - of man's nature adapted to a humane system of education, 164
- DEWEY
 - his "historical amnesia" contrary to reality, 152
 - his radical unbelief, xiii
 - opposed to American tradition, xiii
- Diagnoses
 - of artistic talent, 87-89
 - of intelligence, 33-42
 - of personality, 119-123
- Discipline
 - of the mind
 - through history, 149-154
 - through language study, 143-149
 - through philosophy, 156-158
 - through religion, 158-163
 - through science, 154-156
 - through sport, 164-165
 - through the study of the classics, 192-193
- Dissociation
 - combated
 - by educational idealism, 13-14
 - by integration of the mind through meaning, 45-47
 - by integration of the self through righteousness, 115-119
 - in a split personality
 - Divine Comedy, 86
 - DOSTOIEFSKI, 69
 - DRIESCH, H., x
 - Drill
 - its function in habit formation, 89-90
 - only a partial method, 43
 - DROUGHT, R. A., 89, 217
 - Dualism
 - as philosophy of life, ix-xi, xvi-xvii
 - its relation
 - to classicism, 193
 - to humanism, 4
 - to language study, 147
 - DUNLAP, KNIGHT, 173
 - Dutch
 - their victory over environment, 151
 - Dynamism
 - of artistic inspiration, 161-164
 - of the self-making activity, 110
 - of thought seen in the history of science, 30-33
 - DWELSHAUERS, xi
 - DWIGHT, T., xiv
 - EAST, E. M., x
 - EDDINGTON, A., ix
 - Education
 - as personality training, 2-3, 9, 197-198
 - humane and utilitarian contrasted, 137-142
 - its ideal, 192-194, 218-219
 - naturalistic conception of, ix-xi, xiii-xvii
 - Educator
 - influence of his personality, 188, 222-223

- Educator (*Continued*)
 instrumental, not efficient cause
 of education, 43-44
- Effort
 as an ideal, 132
- Egypt, 151, 152
- Elective System
 its inherent weakness, 163-164
- Emotion
 controlled by reason, 114
 in the life of Goethe, 70-72
 its function in inspiration, 72-73
- Endocrine glands
 see glands, 69-73
- Environment
 determines animal action and
 habits, 100-101
 influences human action and
 habits, 101-102
 overcome
 by creative power, 58-59
 by moral action, 103-108
- ERASMUS, 181
- Ethical Instruction
 its relation
 to psychology, 108-110
 to the different study
 courses, 45-47, 161-163, 165-166
- EURIPIDES, 177
- Evolution
 its abstract, aprioristic meta-
 physics, 109-110
 its materialism, xiv
- Experience
 as a method compared to ex-
 periment, 9-11
 basis of moral principles, 108-110, 130-131
 food for thought, 24-25
 its condensation in the work
 of art, 61-63
 relation to inspiration, 59-61
- Faculties
 creative power, 35-37
 self-making activity, 114-119
 thought, 27-33
- Fathers
 of the Greek Church, 200
- FAUST, 72
- FEENEY, S.J., LEONARD, 65
- FERDINAND and ISABELLA, 151
- Flanders, 6
- Form
 absent in the drawing of an
 insane person, 83-84
 Aristotelian, 32
 object of creative action, 61-64
 in cubism, 84
 in music, 79-80
 in painting, 81-83
 in poetry, 78-79
 in the drama, 80-81
 in the self-making activ-
 ity, 98-99, 118
- Formal Training
 see transfer
- Free Will
 basis of moral life, 98-99
 its reality, 103-108
 stronger than material environ-
 ment, 104-107
- FREEMAN, G. L., xi
- French, 5, 28
- FREUD, S., 73, 230
- FROEBES, S.J., JOSEPH, xi, 10
- GALILEO, 209
- GALSWORTHY, 80
- GALTON, SIR FRANCIS, 68, 69
- GARDEN, M., 9
- German
 humanism, 5
 neohumanism, 183
- Germany, 14
- GERVINIUS, 14
- Glands
 indirect influence on artistic
 inspiration, 73-77
- GOETHE
 his classical inspiration, 182
 his heredity, 68
 his temperamental fluctuations,
 70-73
- GOGH, VINCENT VAN, 55, 58, 69, 77
- GOODIER, ARCHBISHOP, 223
- GORDON, K., 89

- Gothic, 53
 GOYA, 75
 GRANDMAISON, LEONCE DE, 22~
 Greece, 5, 50, 152
 Greek
 see classics
 GRILLPARZER, 69
 GRUENDER, XI
 Guidance Clinics, 122
- Habits
 as a creative attitude, 208-209
 as moulds of
 reason (prudence or common sense), 111-112
 the appetites (self-control), 113-114
 the emotions (courage), 114-115
 the social instinct (justice), 112-113
 as moulds of the intelligence
 in analytic thought, 203-204
 in intuition, 204-205
 in synthetic thought, 202-203
 how to mould a habit
 in animals, 99-101
 in man, 89-90
 their architectonic, 110-111
 their formation
 in classical training, 176-178, 192-194
 in history, 149-154
 in language study, 114-149
 in philosophy, 156-158
 in religion, 158-162
 in science, 154-156
 in sport, 164-165
 their hierarchical unity in personality, 115-119
 their morality based on finality, 111-112
 their structure, 99-101, 89-90, 101-103, 107-108
 their transfer, 170-174
- HALDANE, J. B. S., x
 HAMERTON, P. J., 81
 HAMLET, 62, 63, 76, 215
 Harmony
 its basic function in education, 165-166
 of science, 156
 of sport, 164-165
 its ideal derived from the contemplation
 of a teacher's personality, 222-223
 of Christ's personality, 218-219
 of great men, 223-224
 its ideal derived from the study
 of history, 154
 of languages, 149
 of philosophy, 158
 of religion, 162
- HARTMANN, XI
 HARTSHORNE and MAY, 116, 118
 HAUFF, 68
 HEGEL
 conception of a hero, 69
 conception of thought, 17
 contact with Greek philosophy, 183
 false conception of imagination, 78
 heredity, 68
 ideal of mind training, 163
 philosophy of art, 230
 theory of art, 56
 theory of history as field for psychological observation, 150
 his pernicious monism, xii
 root-thought of his philosophy, 205
 the integrative tendency of his genius, 163
- Heidelberg, 53
 HERBART, 73
 Heredity, 67-70
 Hermann und Dorothea, 72
 HEROD, 218
 Heroism
 as moral beauty, 93
 of Christ, 213-215
 of Saints, 224
 HERRIOT, E., 5

- HILDEBRAND, DIETRICH VON, 232
- History
 as a source of inspiration, 149, 224
 as the concrete manifestation of Providence, 153
 as the domain in which the life of the Church may be observed, 185
 as the laboratory of human nature, 149
 its educational function, 153-154
- HOELDERLIN, 183
- Holland, 150
- HOMER, 4, 41, 50, 177
- HOPKINS, G. M., 66, 86, 230
- HOSKINS, R. G., 112, 230
- Hound of Heaven, 79
- Humane
 education contrasted to utilitarian, 135-142
 psychology, 3-9
- Humanism
 as a
 dualistic philosophy, 4
 harmonic attitude, 4, 5
 historical fact, 3-4
 as the triumph of reason over instinct, 6
 Christian, 6
 compared to pragmatism, 135-142
 in
 history, 149-154
 language study, 143-149
 philosophy, 158-159
 religion, 158-162
 science, 154-156
 its ideal quality in the classics, 168-169, 191-193
 of Jesus, 215-219
 scientific, 4-5
 the Greek compared to French, 5
 to German, 5
 to Spanish, 5
- HUMBOLDT, W. VON, 183
- HUSSELI, xi
- Hygiene
 its relation to art, 52
 to creative action, 94-95
- mental, 12-14
- IBSEN, 80
- Ideal
 its power, 92
 its relation to sentiment, 126, 174
 its transfer, 171-172
 of effort, 132
 of harmony in education: see harmony
 quality of the classical spirit, 191-192
 superior to method as educational instrument, 142
- Imagination
 contrasted to thought, 42
 its part in creative power, 73-75
- Immortality, 33, 165-166, 177
- India, 151
- Inferiority Complex, 13, 14, 95, 124-126
- Innatism
 contradicted by
 education of moral principles, 108-114
 inspiration, 59-64
- Insight: see intuition
- Inspiration
 born of contact with reality
 derived from contact with a great personality, 223-224
- Instinct
 compared to
 love, 75-77
 moral activity, 99-101, 107-108
 thought, 21-27
 determined entirely by environment, 100-101
 its psychological concept, 23
 tied to material stimuli, 23-25
- Integration
 as a function of
 form, 61-64
 meaning, 45-47
 righteousness, 108-114, 117-118

- Integration (*Continued*)
 through
 a humane system of education, 143-162
 the classics, 176-183, 188-194
 the example of Christ, 206-219
- Intelligence
 as an instrument of achievement, 33-34
 its measurement, 33-42
- Interest
 born of inspiration, 51-52, 91-92, 96
 see curiosity
- Introspection
 used in guidance bureaux, 123
- Intuition
 as a habit of the mind, 204-207
 as a quality of creative action, 57-58
- Italians, 189
- Italy, 6
- JAEGER, WERNER, 50
- JANSSEN, xii
- JEANS, SIR JAMES, 17
- JENNINGS, H. S., 68, 230
- Jerusalem, 207
- JESUS
 His
 analytic habit, 207
 creative activity, 208-213
 Divinity, 201-202
 heroism, 213-215
 humanism, 215-219
 ideal personality, 202
 intuitive habit of mind, 206
 moral integration, 218-219
 synthetic habit, 207-208
- Jews, 206
- Johnstone, J., x
- Jesuit, 51, 121
- JOINVILLE, 117
- Judea, 215
- Justice
 the basic social habit, 112-113
- KANT, 29, 55, 216, 103, 130, 132, 169, 205, 229, 230
- KELLOG and KELLOG, 25, 227
- KELLOG, V. L., xiv
- KOERNER, 68
- KERSCHENSTEINER, 83
- KLEIST, 69
- Knowledge
 see thought
- KOEHLER, WOLFGANG, xi, 21, 227
- KRETCHMER, 67, 70, 230
- KUELPE, xi
- LANGHE, HERMANN, 200
- LANGFELD, 78
- Languages, 143-148
- LASHLEY, K. S., x
- Latin
 see classics
- LAVOISIER, 32
- Leadership
 inborn element of, 89
- LEARNED (YERKES and), 2
- Learning
 of animals, 21-27, 75-77, 99-101
 of humans by abstraction, 27-30
 of humans by association, 21-27, 45-47, 73-75, 77-78, 89-90, 101-103
- LEBRETON, 237
- LECOMPTE, MSGR., 104
- LENAU, 69
- LEWIS, SINCLAIR, 214
- Liberty
 see free will
- Lie detector, 35
- LIENART, CARDINAL, 104
- Lincoln, 216
- LINDWORSKI, J., 230, 232
- LINGARD, 149
- LINK, H. C., 196, 238
- Literature
 its educational function, 143-148
- Liturgy, 96, 184, 185
- LOHENGRIIN, 57, 60
- LOMBROSO, 69
- LOPE DE VEGA, 182

- Love
 as the dynamical element of thought
 its
 autonomy in creative action, 58-59
 dynamism in the creative process, 61-64
 essential difference from "libido", 75-77
 fecundation by contact with reality, 59-61
 function in moral activity, 92, 103-104
 training for unselfishness in art, 95
 unselfishness in the aesthetic act, 53-56
 strengthened
 through contemplation, 200
 through motivation, 125-127
 LOWES, J. L., 48, 65, 85, 230
 LOYOLA, ST. IGNATIUS, 116, 117, 132
 LUNN, ARNOLD, xiv, xv

 McDougall, x, 122, 124, 173, 233
 MADARIAGA, S., 167
 MAGDALEN, 218
 MADELEVA, SISTER, 65
 Majorca, 121
 MARBE, xi
 MARECHAL, G., xii, 225
 MARITAIN, I., 225
 MARTINDALE, C. C., 232, 237
 Materialism
 of Dr. Thorndike's educational system—see Thorndike
 of evolutionists, xiv
 Matter
 constitution of, 39, 204
 its essential qualities, 19-21
 MAUPASSANT, GUY DE, 69
 MAY—see Hartshorne
 MAYER, R., 69
 Measurements (Mental)
 indirect, through control of physiological co-efficients, 34-35
 indirect, through quantity of achievement, 35-36
 in metaphorical sense by qualifying the excellence of achievements, 36-40
 of artistic talent, 87-89
 of intelligence, 33-42
 of personality, 121-123
 Mechanical
 see mechanistic psychology
 tests of mechanical ability, 123
 Mechanistic Psychology
 of Communism, 109, 193
 of Dr. Thorndike, ix-x, 6-9
 of Pavlov, 109
 MECHLER, FR., 237
 Meistersinger, 60
 Memory
 contrasted to intelligence, 36-38
 MERCIER, LOUIS, J. A., ix-xvii, 135, 162-163, 225, 236
 MESSER, xi
 MESSIAH, 210
 Method
 comparative value of historical and experimental in psychology, 9-12
 inferior to ideal as an educational factor, 139-141
 transfer of method by generalisation, 139-142, 170-173
 Mexican, 60, 91
 MEYER, C. F., 69
 MEYNELL, ALICE, 47
 MICHAEL ANGELO, 175
 MICHOTTE, xi
 Middle Ages
 function of art in the, 50
 their fecundation by Greek thought, 178-179
 Mind
 its development through assimilation
 of ideals, 134-143, 171-173
 of methods, 139-143, 171-173
 of sentiments, 173-174
 its function

- Mind (*Continued*)
 of creative activity, 49-
 50, 53-67, 85, 87
 of self-making, 97-99,
 101-107, 115-117
 of thought, 19-23
 its integration
 through form, 61-64
 through meaning, 42-
 43, 45-47
 through righteousness,
 115-117
 its sensitive elements: see in-
 stinct, imagination, emotion,
 sentiment
 practical, 33-34, 111-112
 spirituality of, 117-119
 theoretic, 202-208
- Modernism
 its pernicious influence on
 Christological studies, 201
- MOMMSEN, 149
- MOORE, T. V., xi
- Moors, 150
- Moral Action
 as fecundator of thought, love
 and sentiment, 127
 as integrator of personality,
 115-117
 superior to environment, 104-
 108
- MORE, PAUL ELMER, xii
- MOERIKE, 67
- Motive
 a factor in habit formation,
 125-126
 integration of, in apperception,
 128-130
 its psychological elements, 126-
 127
- Moulds
 of personality
 in history, 149
 in language study, 143
 in philosophy, 156
 in religion, 158
 in science, 154
 in sport, 164
 in the classics, 192-194
 in the contemplation and
 imitation of Christ, 201
 in the contemplation and
 imitation of great per-
 sonalities, 222-224
- Monism
 materialistic and behavioristic
 psychology ix, x
 spiritualistic of Hegel, xii
 versus dualism, ix-xiv
- MOZART, 68
- MURDOCH, W., 55
- Music
 form in, 79
- MUSSER, B., 65
- National Education Association, 219
- Nazareth, 217
- NIETZSCHE, 70, 110
- NEWMAN, 147, 234
- NEWTON, 36, 69, 206
- NICODEMUS, 217
- OATES, CAPTAIN, 120
- O'CONNEL, G., xiv
- Odyssey, 85
- Organisation of Values
 as a conscious process in self-
 education, 128, 129
 as a means to integration of
 character, 128-130
 as a source of moral energy,
 130
 through emotional appeal in
 children, 128
- OROZCO, 60, 91
- OSBORNE, H. F., xiv
- OVERMAN, J. R., 172
- Painting
 form in, 81-84
- Paraguay, 51
- PARSIFAL, 87
- PASTEUR, 206
- Pastor, 149
- PATRICK, KATHERINE, 64
- PAULSEN, 185
- PAVLOV, 109
- PEARL, R., 68
- PERICLES, 146, 151
- Personality
 and the school, 219-222
 and the teacher, 222-223

- Personality (*Continued*)
 contrasted with character, 120
 ideal of education, 1-3, 135-143, 197-200
 its social aspect, 199
 its psychological aspect, 197-199
 moulds of: see moulds
 of Jesus: see Jesus
- PESTALOZZI, 216
- PETER, ST., 208
- Pharisees, 206
- PHIDIAS, 118, 191
- Philosophy
 as a mould of personality, 156-158
 relations to other spheres of knowledge, 158
- PIAGET, G., 146
- PICASSO, PABLO, 34
- PLATO
 as an inspirer, 183
 as moralist, 211
 as thinker, 171
 his idealism, 177
 his indirect influence on the Middle Ages, 180
 his
 conception of love, 48
 emphasis on science, 5
 ideal of personality as a mixture of strength and gentleness, 6
 innatism, xii
 psychology of creative power, 216
 theory of art as an educational instrument, 92
 undying novelty, 11
 his psychology of love
 his thirst for the Divine, 194
 master of humanism, 147
 on aesthetics, 229-230
 on education, 234
 on emotions, 127
 on heredity, 171
 on social disintegration, 162
 on the relations between knowledge and virtue, 213
 on the relations between science and philosophy, 147
 on the supreme Good, 159
 on transfer, 170
- Poetry
 its function in education: see art
- Pomona College, 60, 91
- POPE PIUS XI, 161
- Popular Humanism, 6, 167, 168
- Practical Mind
 in moral action, 111-112
 its pernicious dissociation from the theoretical mind, 214
 its relation to theory seen in psychology, 108-110, 130-131
 of Jesus perfectly integrated to His theoretic reason, 214-215
- PRAXITELES, 191
- PRIESTLEY, 209
- Primary Qualities of Matter, 19
- Principles
 of human psychology derived from history, 150-152
- Problem children, 14
- PROMETHEUS, 60, 91
- PRZYWARA, XII
- Psychological Corporation, 123
- Psychology
 behavioristic, ix, x
 dualistic, xvi-xvii
 humane, 6, 7
 mechanistic. see Thorndike
 monistic, xii, 8, 78
 naturalistic, xiii, xiv
- PYTHAGORAS, 31
- QUEVEDO, 132
- Quantitative approach: see measurements
- QUINTILLIAN, 170
- Racial
 influence on humanism, 5
- RACINE, 182
- READ, H., 76
- Reality
 as a source of inspiration, 59-61

- Reality (*Continued*)
 - as the basis of abstraction, 30
 - as the basis of moral principles, 108-110, 130-131
 - as the raw stuff of form, 61-63
- Reason
 - as contemplation, 26
 - its dynamic aspect
 - in art, 61-64
 - in moral life, 115-117
 - in science, 23-33
 - its practical functions, 110-111; see intelligence
 - its theoretic functions
 - analysis, 203
 - intuition, 204-206
 - synthesis, 202-203
 - the architect of habit, 111-112
- Reformation, 169
- Relations
 - as object of thought, 29, 39, 208-211
- Religion
 - as mould of personality, 158
- REMBRANDT, 111
- Renaissance
 - born of contact with classical art, 179-181
 - its scientific curiosity, 32
- Republic
 - Plato's, 147, 220
- Retention
 - see memory
- RETH, 69
- RÉVÉSZ, 88
- Reward
 - as initial motive, 198
- RIBERA, 49
- Righteousness
 - compared with meaning and form, 97-99
 - integrative form of a man's life, 118-119
 - object of moral action, 111
 - unifying principle of man's urges, 111
- RODRIGUEZ, ST. ALPHONSUS, 121
- Romanesque, 53
- Romans, 4
- Rome, 151, 215
- ROTHACKER, E., xii
- ROUSSEAU, J. J., 69, 112.
- Sabbath, 207
- Salamanca, 170
- SAXBY, I. S., 173
- SAXO GRAMMATICUS, 62
- SCHERER, MAX, xi, 112
- SCHELLING, 55, 67, 183, 214
- SCHILLER, 71, 72
- SCHLOSSER, 57, 63
- SCHMIDT, W., 110
- Scholasticism, 179, 180
- School
 - its limitations, 219-222
 - its responsibilities, 219-222
- Schoolmen, 178, 180
- SCHUBERT, F., 75
- SCHUMANN, 69
- Science
 - as a mould of personality, 156-158
 - as the basis of philosophy, 158
- SEASHORE, 87, 217
- SIEGFRIED, 60
- Self-Consciousness
 - see "thought" and "consciousness"
- Self-Making Activity
 - compared
 - to creative action, 97-98
 - to instinct, 107-108
 - to thought, 97-98
 - governed by reason, 111-112
 - its
 - essential freedom, 104-107
 - power over material environment, 104-107
 - relation to the appetites, 113-114
 - relation to the emotions, 114
 - relation to the social urge, 112-113
 - its integrative function, 115-119
 - its relation to abstract or theoretic reason, 108-110, 130-131

- Self-Respect
 basis of character training, 124-125
- Sensation
 compared to imagination, 42-43
 compared to thought, 42-43
- Sentiment
 as organised emotion, 173-174
 transfer of, 173-174
- Sex
 controlled by reason, 104-107, 113-114
 influence on higher functions of men, 71
- SHAKESPEARE, 182
- SIDNEY, SIR PHILIP, 182
- Social
 personality, 3, 199-200
 urge as raw stuff of personality, 113-114
- Sociology
 of art, 93-96
- SOCRATES, 48, 200, 211
- SOLOMON, 218
- SOPHOCLES, 31, 126, 177
- Soul
 see mind
 spirituality of, 27-30, 75-86, 117-119
- Soviets, 109, 193
- Space
 does not determine the mind mechanically, 18-19
- Spain, 6, 51, 149, 150, 168
- Spanish, 5, 28, 171, 190
- Specific Powers
 their influence on interest, 36
- SPEARMAN, C.
 his neglect of the dynamic aspect of inspiration and thought, 208-209
 on creative action, 208-209
 on perception of relations, 208-209
 on the abilities of man, x, 228
 on the basic quality of intelligence, 38-39
- Spirituality
 see "soul" and "mind"
- Split personality, 121-122
- Sport
 as mould of personality, 164-165
- SPRANGER, E., xii, 115, 183, 225
- Stimulus and Response
 as Thorndike's mechanical conception of mind, x, 7-8
 no explanation
 of creative power, 77-86
 of the self-making activity, 115-119
 of thought, 17-21
- STOUT, G. F., x, 227
- Stridenberg, 68
- Subconsciousness
 its
 nature, 73-74
 relation to apperception, 73
 role in inspiration in general, 74-75
 role in the inspiration of Beethoven, 63-64
- Summa Theologica, 19, 97, 203
- SWINBURNE, 75
- Symbols
 of thought in movements, sounds, signs, 20
- SYMONDS, P. M., 89, 123, 232
- Sympathy, 112-113
- Synthesis
 as a habit of the mind, 165, 202-203
 in philosophy, 158
 in religion, 161-162
- TACITUS, 91
- TALBOT, S. J., F. X., 64
- TANNHAUSER, 58
- TASSO, 41
- Teacher
 educational value of his personality, 223, 224
 function of the, 43, 44
- Telology
 implied in all science, 111-112, 155, 156
 its role in psychology and ethics, 111-112

- Temperament
 - asthenic or lean (schizoid), 70-71
 - influence on thought and love, 71-73
 - muscular, 70-71
 - pyknic or fat (zykloid), 70-71
- TERMAN, L., 40, 140, 228
- Tests
 - see mental measurements
- Thales, 31
- THOMAS, ST.
 - and Aristotle, 189
 - his followers, 180
 - his psychology of habits, 11 on
 - genius, 203
 - the architectonic of habit, 131, 232
 - the making of the self, 97
 - the unselfishness of artistic contemplation, 55
 - transfer, 170
 - plan of his Summa, 203
- THOMPSON, F., 79
- THORNDIKE, E. L.
 - calls spiritualism mysticism, 7
 - his
 - abstraction, 27, 77, 78, 85, 137
 - attack on formal training, 139
 - behaviorism, x, 7, 8
 - conception of mind, 205
 - determinism, 7, 8, 101
 - evolutionistic psychology, 7, 8
 - experiments on transfer, 37
 - fails to explain the process of reflection, 99
 - materialism, 7, 8
 - mechanical conception of mind, 7
 - on animal psychology, 8, 227
 - theory of identical elements, 137
- Thought
 - and the activity principle, 43
- as an instrument of achievement (practical mind), 33
- as a reflection of the self on the self, 98, 99
- as perception of relations, 38, 39
- contrasted to creative power, 208, 209
- independent of the stream of sense and imagination, 18, 19, 98, 99
- independent of time and space, 18-19
- irreducible to
 - association of ideas, 27, 77, 78, 85, 137
 - bond-making mechanisms, 27, 77, 78, 85, 137
 - chemical and physical phenomena, 19
 - instinct, 21
 - reflexes, 27, 77, 78, 85, 137
- its
 - contemplative nature, 25
 - dynamic quality, 30
 - potential infinity, 33
 - spirituality, 27
 - unifying tendency in abstraction, 30
- its unifying function
 - in aesthetic condensation, 61
 - in the acquisition of ideals and skills, 141, 142
 - in the different study subjects, 143-158
 - in the supreme synthesis of religion, 158-162
 - in the three basic habits of the mind, 202-206
- Tradition
 - as criterion of truth, 10-12
 - as "the mental thrift of our fathers", 151-152
 - as the subconsciousness of the race (crystallized thought), 151-152
 - unity of European tradition, 190
- Training of mental faculties
 - see transfer

- Transfer
 applied to study subjects in general, 143-162
 applied to the classics, 176-194
 of ideals, methods and sentiments, 140-142, 170-174
- Tristan und Isolde, 80
- TURNER, W. J., 55
- TURNER, J. M. W., 81
- UHL, W. L., 234
- Unselfishness
 as essential quality of creative action
 as ideal imparted in art training
- Unity
 and richness as essential factors in personality, 120
 of the personality of Jesus, 218-219
- Universals
 education of, by thought, 27-30
 in art: see form
 in the making of the self: see righteousness
- Urge
 animal: see instincts
 human: see mind
- Utilitarian
 attitude in education, 137-142
- Values
 organisation of, 128-130
- Value School, 73
- Vatican Council, 185
- VEGA, GARCILASO DE LA, 182
- VEGA, LOPE DE, 51, 182
- VELASQUEZ, 49, 111
- VIALLETON, xv
- Virtues
 of practical reason, 111-115
 of theoretical reason, 202-206
- VIVES, 181
- Vocational Diagnosis, 122-123
- Vocational Guidance Bureaus, 122-123
- WAGNER
 autonomy of his inspiration, 58
 his leit-motiv, 80
 inspired by contact with reality, 60
 novelty of his inspiration, 209
 on artistic intuition, 57
- WATT, xi
- WELLS, H. G., xiv
- WERTHER, 71
- Will
 its role
 in creative action, 53-59, 75-77
 in the self-making activity, 98-99, 103-107
 in thought, 30-33
 its spirituality, 58-59, 75-77, 98-99, 103-107
 strength of, 125-126
- WILWOLL, W., 227
- WOLF, HUGO, 69
- WOODS, 67
- WOODWORTH, 37
- Words
 symbols of meaning, 20, 22-25
- YERKES
 on animal psychology in education, 8
 on animal speech, 21-23
 on anthropoids, 227
- ZOROASTER, 200

IN LUCEM EDI POTEST:

JOSEPH A. MURPHY

PRAEP. PROV. S.J.

NIHIL OBSTAT: ARTHUR J. SCANLAN, S.T.D.

CENSOR LIBRORUM

IMPRIMATUR: ✠ PATRICK CARDINAL HAYES

ARCHBISHOP, NEW YORK

NEW YORK, MAY 21, 1936